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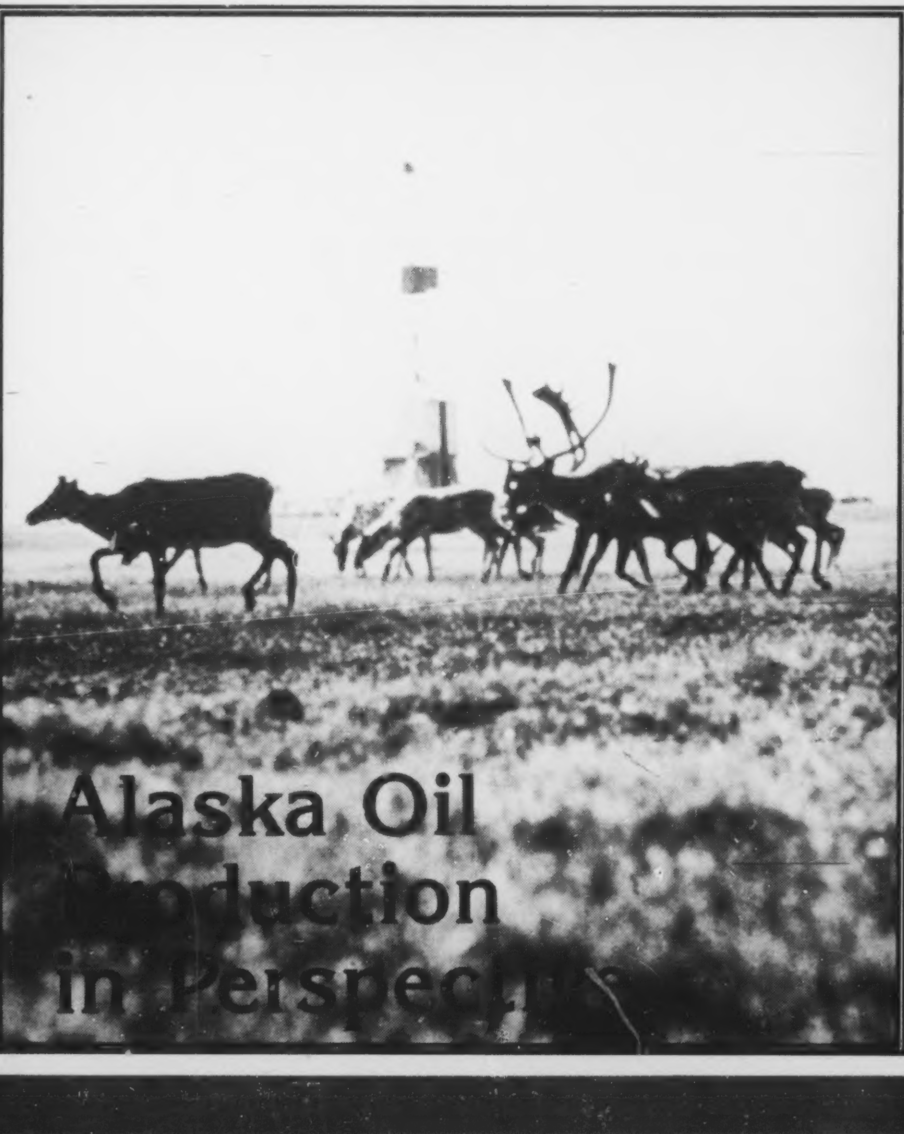

# Alaska Oil Production in Perspective

Alaska's Oil Patch

The Oil States—How Does Alaska Compare?

Working in the Oil and [illegible]

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ALASKA DEPARTMENT OF LABOR STEVE COWPER, GOVERNOR

# Alaska Economic Trends

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**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

*Alaska Economic Trends* is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

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# Alaska Oil Production in Perspective

**By Dr. Charles Logsdon[1]**

The discovery of the Swanson River oil and gas field on the Kenai Peninsula in 1957 marked the beginning of the oil era in Alaska. Alaska became a state at about the same time. In many ways the maturation and growth of the Alaskan economy mirrors the growth in oil production since that time. Figure 1 illustrates the oil production curve for Alaska compared to State employment since 1958.

By 1962 the Swanson River field was producing nearly 30,000 barrels of oil per day (Table 1). With the discovery of oil offshore in Cook Inlet and the installation of production platforms in the mid 1960s, the Middle Ground shoal field, the Granite Point field, the MacArthur River field, and the Trading Bay field together brought production up to over 200,000 barrels per day. By 1970, Alaska had become a significant oil producer and the oil industry was already contributing over 20% of the revenue coming into the State treasury.

The discovery of the super giant Prudhoe Bay field in 1968 suggested the real potential of Alaska as an oil producer. Over $900 million was spent in the 1969 state lease sale of the remaining tracts in the Prudhoe area. However, it would take the Arab oil embargo of 1973 to spur congress to pass legislation enabling the construction of the TransAlaska Pipeline System (TAPS) to move oil from Alaska's North Slope to Valdez for shipment to lower 48 markets.

**The discovery of the super giant Prudhoe Bay field in 1968 suggested the real potential of Alaska as an oil producer.**

TAPS was completed in June of 1977 at a cost of over $9 billion, making it the largest privately financed construction project ever undertaken. Oil production from Prudhoe Bay commenced June 20, 1977 and averaged 580,000 barrels per day that year. Production grew until the Maximum Efficient Rate (MER) established by the Alaska Oil and Gas Conservation Commission of 1,500,000 barrels per day was achieved in 1980.

High oil prices in 1980 and the decontrol of domestically produced oil prices spurred development of the giant Kuparuk River oil field 30 miles west of Prudhoe Bay. The completion of the Kuparuk pipeline in 1981 brought this field into production at 80,000 barrels per day. Kuparuk production was developed in three phases. The third phase completed in December 1987 brought production up to 300,000 barrels per day.

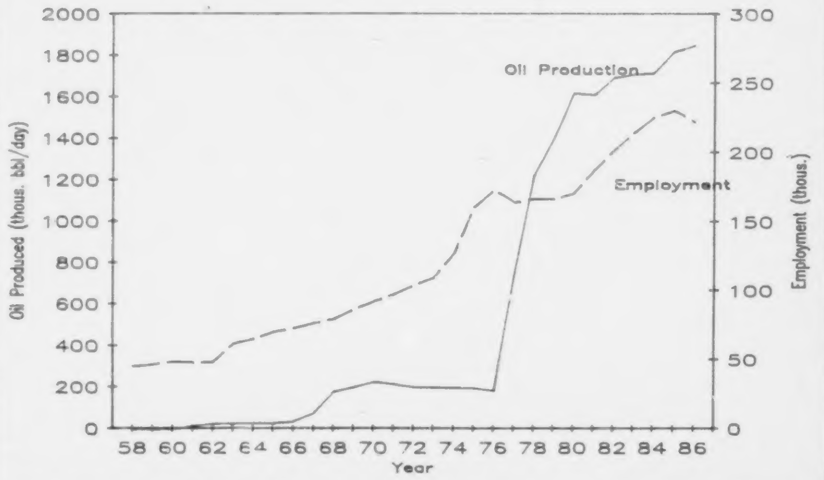
The Milne Point field north of Kuparuk came into production in late 1985 at roughly 20,000 barrels per day but was shut-in when the collapse of oil prices made production unprofitable.

The Lisburne reservoir which underlies Prudhoe was brought into commercial production in 1987 and is currently producing at a rate of 45,000 barrels per day. The Endicott field which just began production has a target production a rate of 100,000 barrels per day.

Barring new discoveries on the Alaska North Slope, oil production in Alaska will probably peak between now and 1990. In the event that no

Figure 1

Alaska Oil Production & Nonag. Employment 1958--1986



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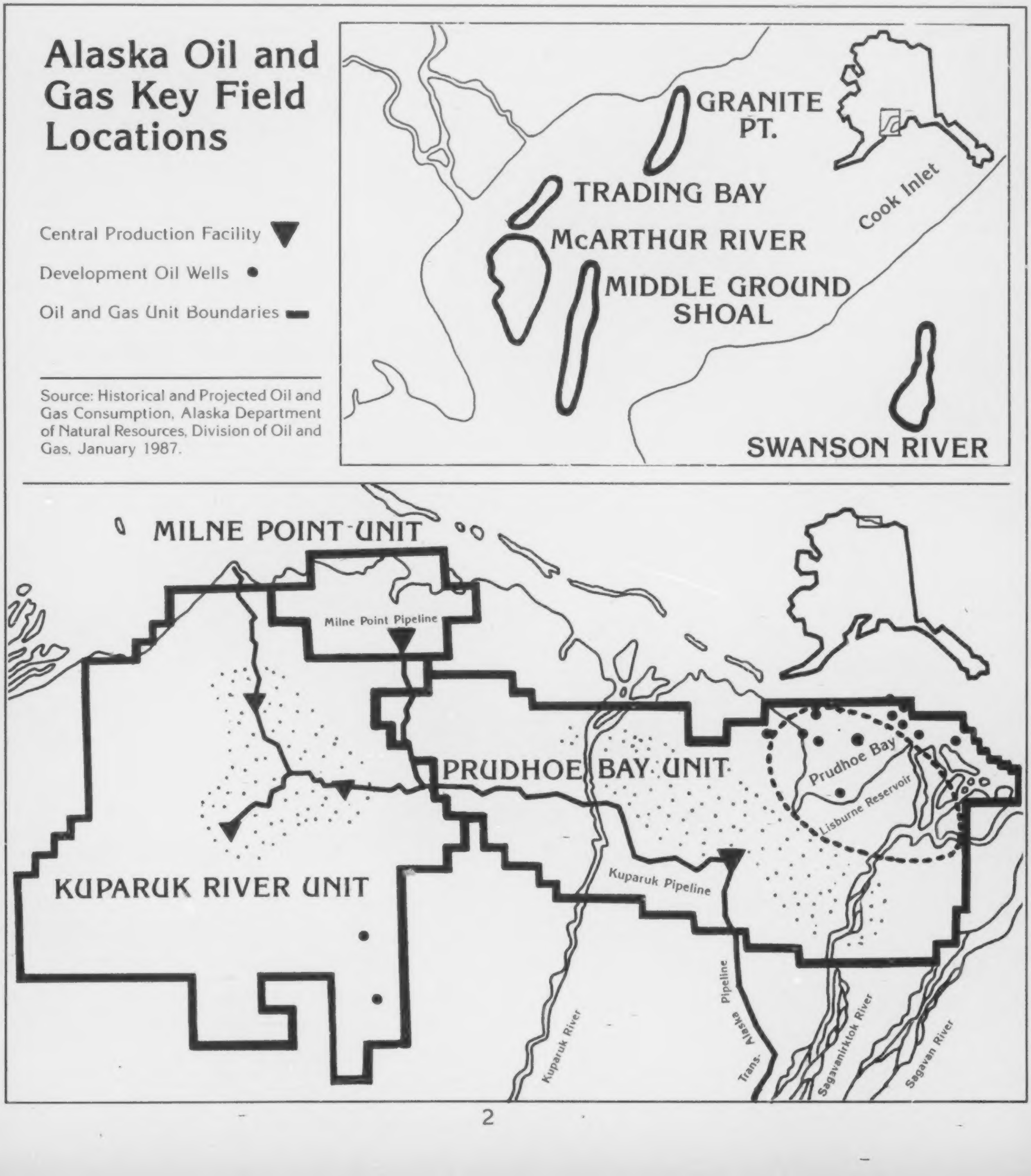
[1] Dr. Charles Logsdon is a petroleum economist with the Alaska Department of Revenue.

new sources of oil are discovered, it is anticipated that one-half as much oil will be produced in Alaska in the year 2000 as is currently being produced, It might be pointed out that one-half of current production (900,000 barrels per day) is still a significant amount of oil—roughly the current production quota for the OPEC country Kuwait.

If Alaska were a country it would be the world's seventh largest oil producer with 1986 production of 1.855 million barrels per day. Only two countries in OPEC produced more oil than Alaska did in 1986, Saudi Arabia and Iran. The USSR, the lower 48 U.S., the United Kingdom, China, and Mexico were the only non-OPEC countries with more production than Alaska. Alaska accounts for 21% of the total oil production in the U.S. and roughly 3% of total world production. Table 2 presents information on world oil production and reserves for 1986.

Alaska accounts for only one percent of total world oil reserves and roughly one-third of total U.S. reserves. The relationship between Alaska reserves and production suggest that Alaska



## Alaska Oil and Gas Key Field Locations

Central Production Facility ▼
Development Oil Wells ●
Oil and Gas Unit Boundaries ▬
GRANITE PT.
TRADING BAY
McARTHUR RIVER
MIDDLE GROUND SHOAL
SWANSON RIVER
Cook Inlet
MILNE POINT UNIT
Milne Point Pipeline
PRUDHOE BAY UNIT
Prudhoe Bay
Lisburne Reservoir
KUPARUK RIVER UNIT
Kuparuk Pipeline
Kuparuk River
Trans. Alaska Pipeline
Sagavanirktok River
Sagavan River

Source: Historical and Projected Oil and Gas Consumption, Alaska Department of Natural Resources, Division of Oil and Gas, January 1987.

reserves are being depleted at a much faster rate than is the case for most countries.

There are two reasons for this. First the Prudhoe Bay oil field is highly productive. The average well at Prudhoe produces at a rate of 2,800 barrels per day compared to the U.S. average of around 400 barrels per day. Second, most oil production world-wide is controlled by the governments of the producing country. Production rates are controlled to promote the oil price policy of the producing countries and also as an instrument for controlling economic growth. By contrast in the United States private companies determine production rates in response to market forces constrained only by regulations designed to promote maximum production through sound conservation practices.

With respect to production control, all of the OPEC countries produce at less than capacity to support the price structure agreements setup under the cartel production and pricing accords. Even producing at capacity, only four OPEC countries would have produced more than Alaska did in 1986. These comparisons illustrate in dramatic fashion just how large and productive the Prudhoe Bay oil field is.

The other important implication of the information contained in Table 2 is that of the 8.8 million barrels per day excess capacity which exists in the OPEC countries, Saudi Arabia accounts for 3.6 million barrels per day or 40%. This illustrates dramatically the potential supply side leverage the Saudis have in affecting OPEC pricing policy. This is why the Saudis have found themselves in the role of swing producer to enforce cartel pricing agreements. That is to cut production when over supply in the market weakens price and to increase production to correct shortages or discourage production quota cheating by other cartel members.

Interestingly Iran is the OPEC country with the second largest share of 1986 OPEC excess capacity. This underlines the importance of the need for cooperation between Saudi Arabia and Iran in managing the cartels over-

**Even producing at capacity, only four OPEC countries would have produced more than Alaska did in 1968.**

**Table 1**
**Alaska Oil Production History Since Statehood**
**(Barrels Per Day)**

| Year | Production Event | Cook Inlet | Prudhoe Bay | Kuparek | Milne Point | Lisburne | Total |
|---|---|---|---|---|---|---|---|
| 1958 | Swanson River | 98 | | | | | 98 |
| 1959 | | 511 | | | | | 511 |
| 1960 | | 1,529 | | | | | 1,529 |
| 1961 | | 17,333 | | | | | 17,333 |
| 1962 | | 28,107 | | | | | 28,107 |
| 1963 | | 29,425 | | | | | 29,425 |
| 1964 | Middle Ground Shoals | 30,285 | | | | | 30,285 |
| 1965 | | 30,497 | | | | | 30,497 |
| 1966 | Granite Point | 39,355 | | | | | 39,355 |
| 1967 | MacArther River | 79,215 | | | | | 79,215 |
| 1968 | Trading Bay | 181,103 | | | | | 181,103 |
| 1969 | | 203,597 | | | | | 203,587 |
| 1970 | | 229,080 | | | | | 229,080 |
| 1971 | | 215,849 | | | | | 215,849 |
| 1972 | | 201,540 | | | | | 201,540 |
| 1973 | | 200,382 | | | | | 200,382 |
| 1974 | | 197,796 | | | | | 197,796 |
| 1975 | | 197,184 | | | | | 197,184 |
| 1976 | | 183,586 | | | | | 183,586 |
| 1977 | TAPS Opens | 160,364 | 580,000 | | | | 740,364 |
| 1978 | | 137,559 | 1,089,000 | | | | 1,226,559 |
| 1979 | | 117,778 | 1,283,000 | | | | 1,400,778 |
| 1980 | Prudhoe at MER | 98,851 | 1,522,000 | | | | 1,620,851 |
| 1981 | Kuparuk Start-up | 86,411 | 1,522,000 | 2,990 | | | 1,611,401 |
| 1982 | | 75,151 | 1,532,241 | 88,622 | | | 1,696,014 |
| 1983 | Prudhoe Waterflood | 67,947 | 1,536,413 | 109,207 | | | 1,713,568 |
| 1984 | | 59,769 | 1,531,287 | 127,434 | | | 1,718,489 |
| 1985 | Kuparuk Phase 2 Milne Point | 47,154 | 1,556,023 | 215,888 | 1,929 | | 1,820,993 |
| 1986 | Kuparuk Phase 3 + Lisburne | 46,611 | 1,537,752 | 257,514 | 12,901 | 8,500 | 1,853,278 |

all production level. OPEC's current success in implementing a return to fixed prices around $18 per barrel was a direct result of a price and production agreement proposed by Iran and endorsed by Saudi Arabia at both the December 1986 and June 1987 OPEC meetings.

### Table 2
### World Oil Production and Reserves 1986

| Country | Production[1] (thousand bbl/day) | Capacity (thousand bbl/day) | Reserves (billion barrels |
|---|---|---|---|
| Saudi Arabia | 4,865 | 8,500 | 166.6 |
| Iran | 1,879 | 3,000 | 48.8 |
| Iraq | 1,688 | 2,000 | 47.1 |
| Kuwait | 1,238 | 2,000 | 91.9 |
| Abu Dhabi | 959 | 1,600 | 31.0 |
| Dubai | 380 | 450 | 1.4 |
| Shar jah | 65 | 75 | .5 |
| Qater | 333 | 500 | 3.2 |
| Neutral Zone | 361 | 600 | 5.2 |
| Mideast OPEC | 11,768 | 18,725 | 395.7 |
| Venezuela | 1,723 | 2,500 | 25.0 |
| Nigeria | 1,470 | 1,800 | 16.0 |
| Libya | 1,034 | 1,500 | 21.3 |
| Indonesia | 1,354 | 1,700 | 8.3 |
| Algeria | 600 | 800 | 8.8 |
| Gabon | 163 | 200 | .6 |
| Ecuador | 277 | 300 | 1.7 |
| Total OPEC | 18,389 | 27,525 | 477.4 |
| USA-Lower 48 | 6,872 | | 17.0 |
| USA-Alaska | 1,855 | | 7.6 |
| North Sea | 3,573 | | 20.0 |
| Mexico | 2,428 | | 54.7 |
| Oman | 560 | | 4.0 |
| Other West | 7,210 | | 37.5 |
| USSR | 12,301 | | 59.0 |
| China | 2,568 | | 18.4 |
| Other East | 440 | | 1.9 |
| Total World | 56,196 | | 697.5 |

Source: Petroleum Intelligence Weekly and the Oil and Gas Journal.

[1] Excludes natural gas liquids.

### Table 3
### Cost of Expanding Capacity in the OPEC Countries in 1995
### (Development and Operating Cost)

| Country | Total Cost ($/Barrel) |
|---|---|
| Iraq | $0.159/bbl |
| Kuwait | 0.334 |
| Qater | 0.353 |
| Saudi Arabia | 0.556 |
| Indonesia | 0.567 |
| Libya | 0.641 |
| Iran | 0.671 |
| Algeria | 1.527 |
| Abu Dhabi | 2.592 |
| Venezuela | 3.976 |
| Nigeria | 4.982 |

Source: M.A. Adelman, Massachusetts Institute of Technology, Center of Energy Policy Research.

Unfortunately, looking at the situation as it occurred in 1986 doesn't tell the whole story because oil is a depletable resource which must be replaced by new discoveries over time if future production is to be maintained. In other words capacity must be expanded and reserves replaced.

In Alaska this means replacing Prudhoe Bay which will begin to decline by 1990. So far new discoveries of oil in Alaska have come no where near replacing the 5.5 billion barrels of oil already produced from the Prudhoe field. This is not to say that they can not be replaced since billions and billions of barrels of oil are known to exist in the ground on Alaska's North Slope in reservoirs such as the Ugnu and West Sak not to mention in Prudhoe Bay itself. The key is the cost to produce that oil and under current technology most of this oil cannot be profitably extracted.

In contrast much of OPEC's additional capacity can be extracted from the ground at very low cost. Table 3 presents estimates of the cost of adding to capacity in the OPEC countries.

The information contained in this table has two important implications for Alaska. First, because the cost of developing and producing oil in the OPEC countries are so low relative to world oil prices, there will always be the tendency for the OPEC members to produce in excess of that amount which would keep price at high levels. This implies that it is more likely that prices will continue low, say below $20.00 per barrel.

Since these cost estimates are for capacity expansions in 1995 the further implication is that the long term prospects for large price increases is small. Prices in the $20 per barrel range make investment in high cost areas like the West Sak Sands or Ugnu questionable.

Alaska's greatest hope of replacing Prudhoe, if prices remain at current levels over time, is new large discoveries. The geologists tell us that the underground structures capable of holding large accumulations of easily recoverable oil have largely been explored. The major exception are those structures located in the Arctic National Wildlife Reserve (ANWR) and the Outer Continental Shelf (OCS).

The second implication of Table 3 is that reserves may be added much more cheaply elsewhere than in Alaska (barring the discovery of another Prudhoe Bay sized field). This implies that Alaska will continue to suffer cost disadvantages in attracting investment for reserve additions. This raises interesting questions about the behavior of the companies who own the production from Prudhoe Bay. What are these companies doing to replace this asset as it is depleted? Are they reinvesting the profits from Prudhoe Bay back into Alaska? What is the state itself doing to encourage investment in Alaska production?

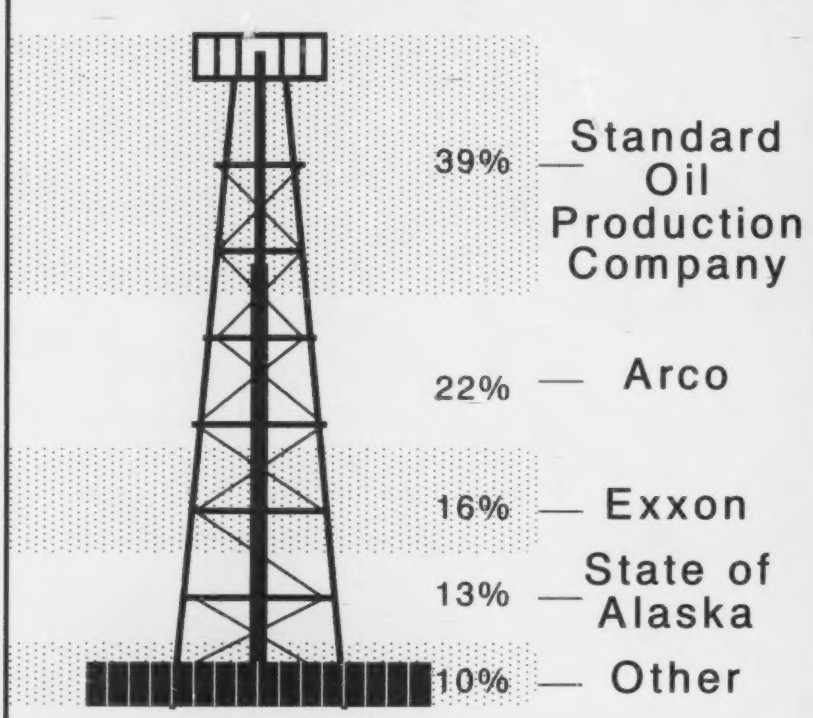
Figure 2 illustrates the ownership of 1986 Alaska North Slope production. The four major owners are Standard Oil Production, ARCO, EXXON, and the State of Alaska through its royalty interest in production. Table 4 summarizes the dependency of each of these three major companies on Alaska for their oil reserves.

Standard Oil Production is now a wholly owned subsidiary of British Petroleum (BP). Alaska oil now represents roughly one-half of the oil reserves of BP. Some of the revenue generated by the prolific Prudhoe Bay field will obviously be used to pay for this major acquisition. Standard will for some time continue to produce the largest amount of oil in Alaska. The company has a significant stake in all the current producing North Slope fields and the Trans-Alaska Pipeline in addition to being the operator of the Endicott field. As a result, Standard Oil Production has developed considerable expertise in Arctic oil production. It is not yet clear, however, what their acquisition by British Petroleum means for further investment in Alaska.

ARCO in press releases and in briefings with securities analysts has made a public commitment to continued investment in development of existing oil reserves in Alaska. The company has restructured to emphasize its position as a West Coast oil refiner/marketer. ARCO is Alaska's largest private employer. It appears that the company will continue to be an aggressive investor in Alaska.

Figure 2

Alaska Oil Production Ownership 1986



EXXON has in the past drilled and participated in the drilling of numerous exploratory wells in Alaska, most recently in the Norton Sound. Like the other major Alaska producers, EXXON owns a large number of leases on the North Slope known to contain recoverable hydrocarbons and is a participant in all of the cur-

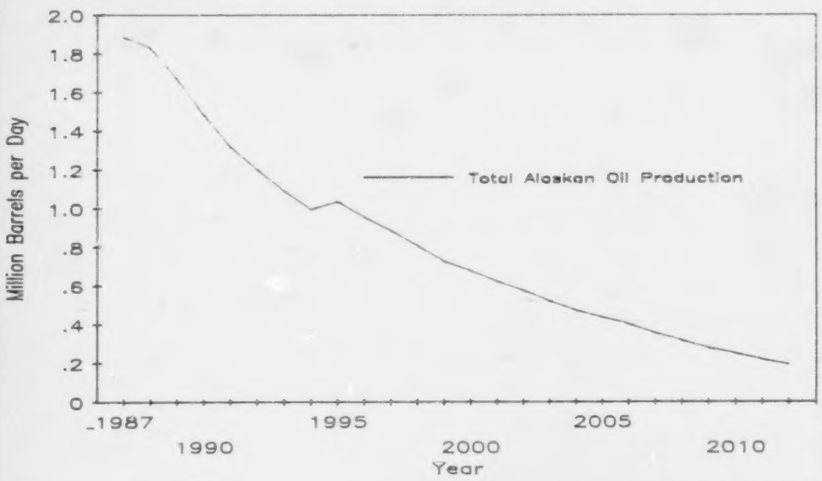
**Table 4**
**Distribution of Major Alaskan Producers Total Production**
**(1986 Production Thousand Barrels per Day)**

| | Standard Oil Production | ARCO | EXXON |
|---|---|---|---|
| Alaska | 706 | 307 | 294 |
| Lower 48 | 20 | 189 | 433 |
| Foreign | | 75 | 1,000 |
| Total | 726 | 571 | 1,761 |
| % Alaska | 97% | 54% | 17% |

Source: International Petroleum Finance.

Figure 3

Predicted Oil Production for Alaska 1987–2012



rent producing fields. EXXON in particular has significant gas reserves in both Prudhoe Bay and the Point Thomson Unit. Recently EXXON acquired 100 million barrels of California reserves from Celeron following the industry trend of buying reserves rather than exploring for them. It remains to be seen to what extent EXXON will use Prudhoe Bay profits to invest in additional Alaskan production.

The State of Alaska attempts to encourage exploration and development of oil in several ways. First, the state has a timely schedule of lease sales. Second, some leases qualify for drilling incentive credits which can essentially underwrite the drilling of an initial exploration well. Third, the state severance tax is subject to the economic limit factor which reduces the tax burden on field which are marginally economic.

### Summary

Alaska is relatively new on the oil scene as a major world supplier of crude oil. If Alaska were a country it would rank seventh among oil producing countries. Production of oil will peak soon (Figure 3) with Alaska playing a declining role in world oil markets unless major new fields are discovered. Regardless, Alaska will continue to produce billions of barrels of oil into the Twenty-first century while in the near term playing an important role in world oil markets.

## The Oil States—How Does Alaska Compare?

**By Neal Fried**

A short time ago Alaska and the other oil producing states in the U.S. basked in prosperous, fast growing economies. These states played host to thousands of economic refugees who had migrated from recession-torn states during the 1970s and early 1980s. There was a feeling of invulnerability in the oil patch.

**Most oil-producing states are losing employment and population.**

Today the situation has changed. Most oil-producing states are losing employment and population; their unemployment rates are among the highest in the nation; and their incomes are falling or are below the national average. Meanwhile much of the rest of the nation is experiencing one of the longest stretches of uninterrupted growth in post-war history. If company provides comfort, Alaska has a good deal of it as it experiences today's economic woes.

Alaska's economic performance during the recent decline is comparable to four of the five largest oil producers in the nation—Texas, Louisiana, Oklahoma, and Wyoming. California, the nation's fourth largest oil producer, is excluded because its oil industry represents only a fraction of that state's tremendous economic might. California's overall economy has actually benefited from lower oil prices. The remaining oil states are at different stages of economic diversification, but the oil industry still reigns king.

The free fall in oil prices in 1986 pushed the oil patch states' unemployment rates to new highs, employment in their oil industries to new lows, and created a tremendous ripple effect throughout their economies. Their economies continued to slide in 1987, though there are encouraging signs of recovery in some of the states.

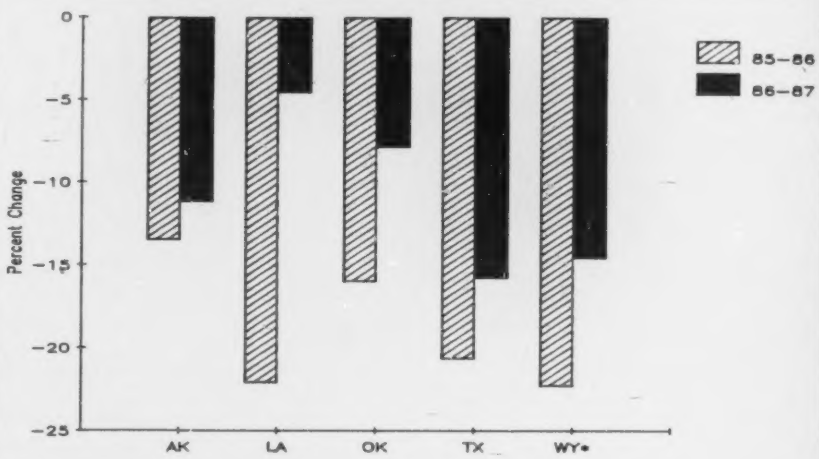
## The Oil Industry's Employment Picture

Alaska's oil industry employment has fared well compared to the rest of the oil patch during these trying times. Alaska and Louisiana were the only states where oil production increased in 1986, whereas the nation's total oil production fell. In 1986 Alaska's oil industry employment registered the smallest percentage decline (3.4%) among the oil producing states. Alaska, dominated by a few large oil producers with large financial might rather than hundreds of independents, was able to withstand a free fall in oil industry employment.

In addition to the domination of Alaska's oil industry by a few large oil producers, the size of the Prudhoe Bay oil field contributes to a more stable oil industry work force. As this country's only super-giant field, its size favors a much smaller work force. By virtue of its size, fewer exploration and producing wells have to be drilled and the smaller number of producing wells which do exist are exceptionally productive.

Other oil producing states are dominated by smaller fields which require more labor to squeeze a barrel of oil out of the ground. For example, Oklahoma has more than 100,000 producing oil wells compared to Alaska's 1,109, but produces only a little over one fifth as much oil. Louisiana has an oil industry work force seven times as large as Alaska's but only produces 75% as much oil. The result is a much more labor intensive work force in the other oil patch states which include many marginal oil fields that are more sensitive than Alaskan fields to the decline in the price of oil.

Figure 1
Percent Change in Oil and Gas Employment



*Change in mining employment; oil and gas not available.

**Table 1**
**Oil Production and Employment**
**1986**

| | Crude Oil Production (thous. bbls.) | Oil and Gas Extraction Employment (thousands) | Production Per Employee (thous. bbls.) |
|---|---|---|---|
| ALASKA | 681,310 | 7.7 | 88 |
| Louisiana | 512,500 | 60.9 | 8 |
| Oklahoma | 149,105 | 52.5 | 3 |
| Texas | 839,606 | 198.1 | 4 |
| Wyoming | 121,337 | 11.0 | 11 |
| U.S. | 3,168,252 | 451.6 | 7 |

Source: Petroleum Independent

Alaska's oil industry employment declined through the first half of 1987. This decline was smaller than in Texas and Wyoming, but larger than the declines Oklahoma and Louisiana experienced (Figure 1). This may be partially explained by the fact that Oklahoma and Louisiana absorbed losses as far back as 1983—three years before Alaska's oil industry employment began to decline.

Texas lost the largest number of oil industry jobs; 51,000 in 1986 and another 33,500 during the first half of 1987. Texas has the largest oil industry work force but it was also the biggest loser on a percentage basis. This is not surprising since it also has one of the most labor intensive oil extraction industries—a Texas oil industry employee produces 4,200 barrels of oil a year compared to 88,000 in Alaska (Table 1).

Oil and gas employment figures continue to remain below 1986 levels in 1987, but during the spring of this year encouraging signs were emerging. The Hughes drilling rig count, a leading indicator of the industry, began to rebound in all of the states but Alaska in late spring of this year. The Hughes rig count is not as important an indicator for Alaska because much less drilling activity takes place in Alaska per barrel of oil produced compared to all other states.

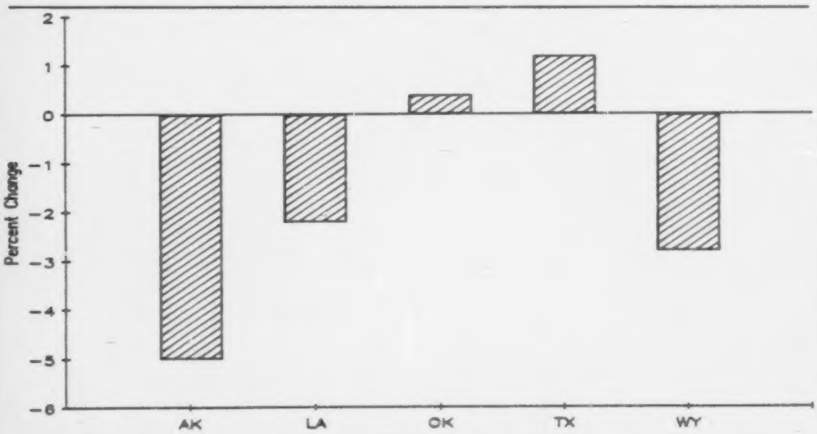
By May and June of 1987, nearly all of the states' oil and gas employment was approaching 1986 levels. Alaska oil and gas figures in January 1987 were 1,500 below year-ago numbers and by June of this year the difference had narrowed to 500. In January, Oklahoma's employment was 7,900 below year-ago levels and by June they were shy by only 1,100 of year-ago levels. More encouraging was the news in Louisiana, which became the first oil patch state to top 1986 numbers in July of this year.

**Table 2**
**1986 State and Local**
**Severance and Production Taxes**
**Paid by the Petroleum Industry**

| | Total Taxes Paid (thousands) | Per Capita |
|---|---|---|
| Alaska | $1,355,800 | $2,539 |
| Louisiana | 653,954 | 145 |
| Oklahoma | 571,965 | 173 |
| Texas | 1,547,926 | 93 |
| Wyoming | 137,999 | 272 |

Source: Petroleum Independent, Sept. 1987.

Figure 2
Percent Change in State and
Local Government Employment, 1986 to 1987*



*Based on the first 6 months of each year.

### Local And State Government Impacts

Unlike oil industry employment, Alaska's state and local government losses have been larger than the losses in the rest of the oil patch states. This should come as no surprise when on a per capita basis, Alaska collects more than 9 times in severance and production taxes as the next highest state, Wyoming (Table 2). By the latter part of 1986 over-the-year losses began to occur in state and local government employment. For the first half of 1987, combined state and local government in Alaska was down 5%; Wyoming experienced the next largest loss of 2.8% and Louisiana followed close behind with 2.2% (Figure 2). Although the remaining states did not experience any combined losses, Oklahoma had a small loss in state government while Texas had a small loss in local government.

While state and local government employment losses in other oil patch states have been smaller than in Alaska, this has not meant that they do not have their share of budgetary problems. Earlier this year Oklahoma was running a $467 million budget deficit and Louisiana's deficit was at $500 million. Texas was facing an even larger problem earlier this year. The state budget runs on a 2-year cycle, and earlier in the year they were facing a $5.8 billion deficit for 1988 and 1989. Texas increased its state sales and gasoline taxes, introduced additional user fees and made cuts to come to grips with the deficit.

In addition to state and local government, the ripple effect spilled over into other sectors of the oil producing states' economies—with construction the biggest casualty. In all states but Louisiana construction took a hard fall in both 1986 and 1987. Alaska's losses were the greatest at 29% in 1986 and an additional 10% for the first half of 1987. Wyoming followed with 7% and 28% losses for 1986 and 1987 respectively.

Alaska's losses in construction employment were greater than the other states for a number of reasons. Half of the other states' construction industries had already absorbed losses during the early 1980s, when the first oil price declines hit. Alaska's construction industry grew straight through 1985 at an annual rate of 13%, thirteen times the rate of any other oil producing state. Alaska's public construction program was more ambitious than the other states, and subsidized interest rates for residential construction provided an additional stimulus to the home building sector. Alaska's construction industry had further to fall and had become more dependent on oil.

Alaska's total employment over the past two years has been hit harder than most of the remaining oil patch states (Figure 3). Some of the oil producing states experienced employment losses prior to 1986, which was the first year Alaska weathered employment losses in the 1980s. Louisiana and Wyoming lost employment in both 1982 and 1983 and Oklahoma in 1983. If we were to look, however, from 1980 to 1986, Alaska would remain the fastest growing oil patch state. During this span of time, Alaska's annual employment growth rate measured 5.6%, compared to 1.6% for the remaining oil producing states.

**Unemployment**

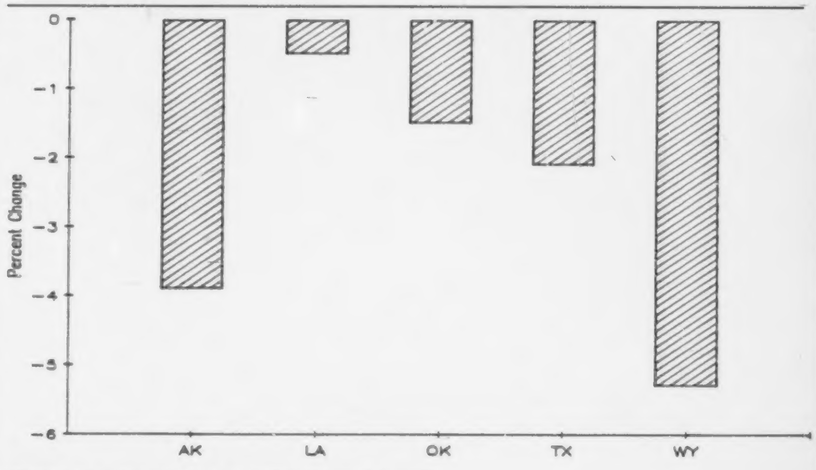
Alaska's and Louisiana's 1986 unemployment rates of 10.9% and 13.1% were the only double digit unemployment rates in the oil patch, although all of the oil producing states' unemployment rates climbed at least 2 points that year, while the national unemployment rate in 1986 edged downward to 7.0%. Four of the five oil producing states were among the top ten states in the nation with the highest unemployment in 1986. Although Texas' unemployment rate was only 8.9%, it represented that state's highest rate since the great depression.

With the exception of Alaska, the unemployment rates continue to edge higher in 1987 (Figure 4). At the same time, the national unemployment rate has fallen to 6.0%, the lowest it has been since December 1979. Alaska's unemployment rate began to fall by 1987. This was due to the exodus of the unemployed not a rebound in the economy.

**Diversification**

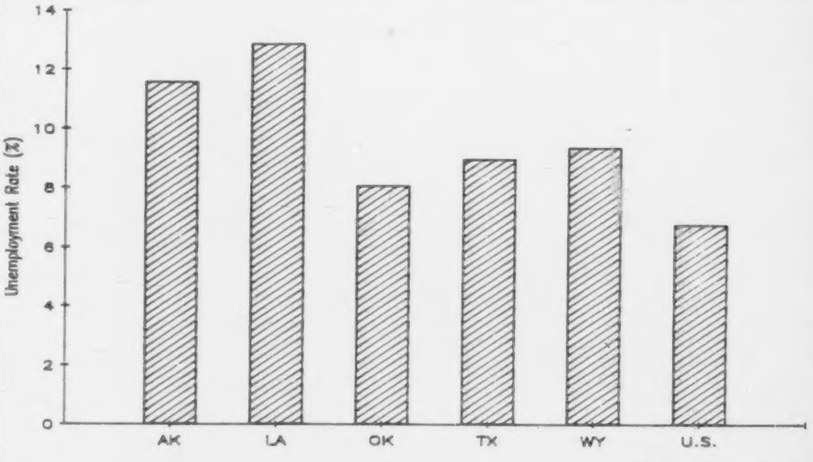
All of the oil producing states have embarked upon economic diversification strategies. With the exception of California, Texas has the most diversified economy in the oil patch which may partially explain its lower unemployment rate. Texas has made strong inroads into the health, research, defense, and high tech industries

Figure 3
Percent Change in Total Employment, 1986 to 1987*



*Based on the first 6 months of each year.

Figure 4
Oil States Employment Rates in 1987*



*6 month average.

while agriculture remains one of its most important industries. The latter two industries are actually contributing to Texas' present economic downturn because of import competition and low agricultural prices.

Bolstering tourism has been considered by all of the states, and the Texas, Louisiana and Oklahoma legislatures all considered, but voted down, gambling as an alternative way to raise revenues. In an attempt to obtain more long-term activity, many of the states are attempting to attract national corporate headquarters. Presently most of the oil patch states can offer some of the cheapest rental space prices and a large supply of labor, usually at a competitive wage. Attracting high tech industries is another area of particular concentration of their diversification efforts. These efforts may eventually help minimize the influence the oil industry has on their economies, but, in the short term, only a turnaround in the level of oil industry activity will breathe new life into the oil patch.

## Conclusion

The worst is over for the oil industry in Alaska and the nation. Signs of new life are now appearing regularly and the oil industry is likely to pull out of the slump soon. The oil industry employs only a small part of Alaska's work force, however, its improving outlook will not have an immediate effect on Alaska's employment picture. With additional cuts in Alaska's state capital and operating budget this year, much of the rest of the economy will continue to feel the reverberations of declining oil revenues. And these oil revenues support a much larger share of Alaska's work force than the oil industry. Most important, however, is the fact that a recovering oil industry is an important indicator that the worst of the present recession may soon be behind us.

# Alaska's Oil Patch

**By Greg Huff**

**Alaska accounts for about 21.2% of the U.S. daily production.**

Alaska is a giant among U.S oil producing states. The daily rate of oil production from Alaska accounts for about 21.2% of the U.S. daily production. Most impressive is that this production level comes from a small number of oil fields. Although there are 26 known sedimentary basins in Alaska only two—the North Slope and Cook Inlet—produce commercial quantities of oil.

Prior to 1977, Cook Inlet oil represented all of Alaska's commercial oil production. Today the North Slope fields account for about 97% of Alaska's oil production. As of mid-1987 oil production from the North Slope was from three oil fields: Prudhoe Bay, Kuparuk and Lisburne. Production from these three fields has increased Alaska's annual oil production ten fold since 1977, to over 670 million barrels a year.

**Table 1**
**Alaska Oil Industry Employment**

| Industry | 1980 | 1981[1] | 1982[1] | 1983 | 1984 | 1985 | 1986 |
|---|---|---|---|---|---|---|---|
| Producers | 3,312 | 3,156 | 3,549 | 4,057 | 4,515 | 4,748 | 4,639 |
| Drilling | 991 | 1,493 | 1,245 | 815 | 841 | 1,175 | 1,171 |
| Exploration (seismic) | 751 | 1447 | 1615 | 930 | 710 | 673 | 340 |
| Oil Field Services | 1,100 | 2,020 | 1,676 | 1,641 | 1,983 | 2,274 | 2,359 |
| Total | 6,153 | 8,116 | 8,084 | 7,442 | 8,049 | 8,869 | 8,508 |
| **Oil Industry Indicators** | | | | | | | |
| Number of oil rigs | 14 | 23 | 22 | 14 | 14 | 20 | 13 |
| Exploration (crew months) | 37 | 82 | 129 | 58 | 79 | 48 | 19 |
| Production (million bbl) | 591.7 | 587.3 | 618.9 | 625.5 | 630.4 | 666.2 | 681.3 |

Sources: Employment data: Alaska Department of Labor, ES-202 data 1980-1986.
Oil industry indicators: Petroleum Independent

[1] ES-202 figures were adjusted for coding errors.

Each stage in the development of the North Slope oil fields has resulted in more oil and gas jobs in Alaska, though there have been intermittent periods where employment has fallen. Over the last decade, Alaska's oil and gas employment has grown nearly three fold, peaking in 1985 at 8,869 jobs. Although employment fell in 1986 the industry still accounted for 4% of the total jobs and 9% of total wage and salary payroll in Alaska.

### Alaska's Oil Employment 1980-1987

From 1980 through 1982 Alaska oil patch employment grew rapidly (Figure 1). This growth in employment was brought on by $30 a barrel oil prices and major development projects in the Prudhoe Bay and Kuparuk fields. Employment cutbacks followed in 1983 with reduced drilling and seismic exploration schedules. In 1984 another period of employment expansion began with rounds of additional development in the Prudhoe Bay Field directed at maintaining the daily production rate of 1.5 million barrels and extending the production life of the field. Concurrently, additional development was being done in the Kuparuk field.

Projects at both fields caused drilling schedules to increase, gravel pads and pipelines to be built, and production and enhanced recovery facilities to be constructed and staffed. This period of growth lasted until 1986 when the collapse of oil prices caused a critical reassessment of planned development activities. Oil and gas exploration activities were delayed or altered, idling equipment and crews.

An example of a marginal field that was shut down by low oil prices is the Milne Point oil field. Milne Point started producing in late 1985 but shut down in the summer of 1986. On the other hand, the Lisburne field, considered marginal, began commercial production in December 1986. In addition, Standard Alaska Production Company brought the Endicott Oil field into operation in October, so there was some positive news despite the gloomy scenario caused by falling oil prices.

After all the dust settled, less than 400 oil and gas jobs had been lost by the end of 1986; not that bad considering the free fall of oil prices. By the end of 1986 oil prices began to climb and by 1987 oil prices had returned to levels that were comparable to those prior to the crash. However, oil and gas employment continued to fall as drilling and exploration schedules were further reduced, but the worst appear to be over as some industry indicators are improving.

Figure 1
Alaska Oil and Gas Employment 1980 to mid 1987

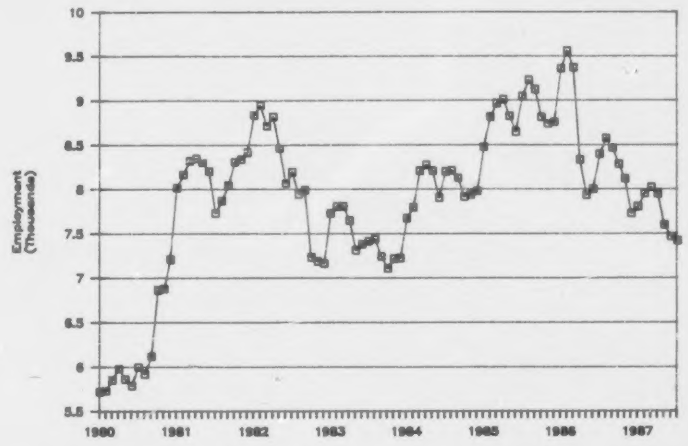
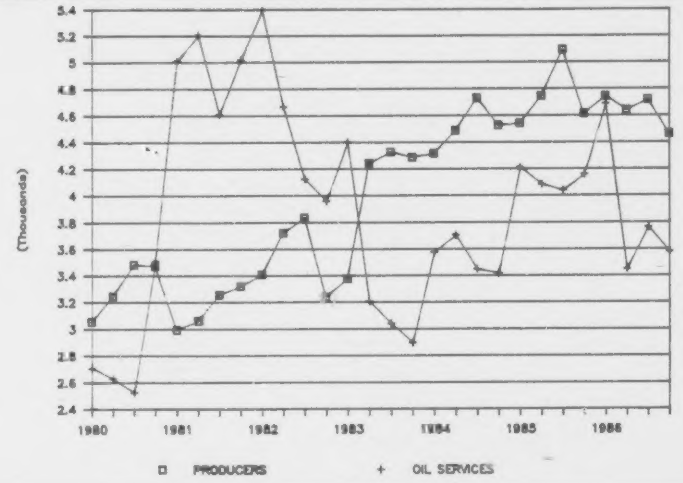


Figure 2
Alaska Oil and Gas Employment – Producers and Services



### Production Employment

Each stage of development has a different impact on employment levels of the various segments of the oil industry (Figure 2). The two primary segments are oil and gas production and oil field services. The oil and gas production segments includes the primary operators of the oil fields such as ARCO and Standard Alaska Production Company. This segment employs workers to operate production facilities and to support and/or manage the operations in the field.

The oil field services segment includes firms which provide contract services to the primary operators. These services includes drilling, exploration services and miscellaneous oil field services.

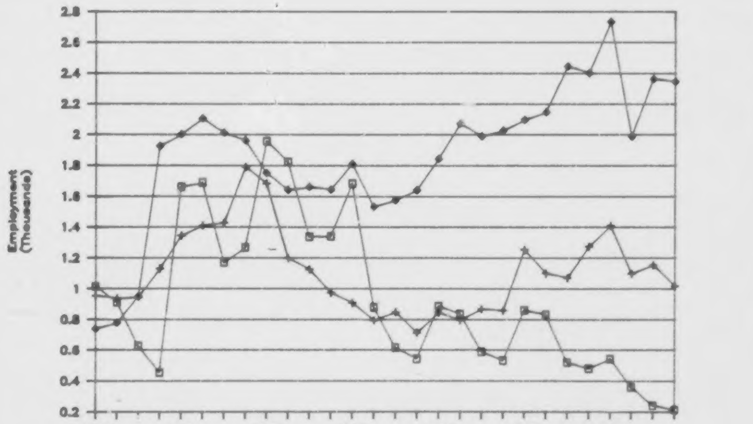
Employment in the production segment grew each year from 1980-1985, because of the ongoing development of the North Slope oil fields. Cook Inlet production employment was fairly stable over the period. Company reorganization and layoffs caused by the 1986 drop in oil prices halted growth in production employment. The layoffs and reorganizations ultimately caused production employment to fall by 100 jobs.

**Field Service Employment**

Employment in the oil field service segment have fluctuated widely over the years (Figure 2). Employment in oil field services peaked in 1982 then fell sharply through late 1983. Although there was a growth period beginning in late 1984, employment never regained the levels reached in the early 1980s. In general, as the North Slope fields mature the demand for exploration and drilling services declines.

A further breakout of the oil field services segment is helpful in understanding its underlying employment trends. The three sectors which make up the oil field services component are drilling, exploration, and miscellaneous oil fields services. They all provide oil and gas services on a contract basis to the primary producers.

Figure 3
Alaska Oil and Gas Employment – Oil Field Services



The drilling services sector contains establishments that specialize in directional drilling, spudding in wells, and redrilling or reworking wells. Exploration service firms provide geophysical and geological services including seismic testing. The miscellaneous oil field services category is a catch all for firms providing any other type of oil field services, such as building foundations at well locations, cementing wells, or chemically treating wells.

Of the three sectors the exploration services tends to be the most sensitive to oil prices. Both exploration and drilling are utilized extensively during early phases of oil field development. The miscellaneous component is influenced more by facility construction, production schedules, and oil field maintenance.

The drilling and exploration sectors have similar trends through 1983. Employment grew rapidly during the early development stages of Prudhoe and Kuparuk fields, but fell quickly in 1983 (Figure 3). Drilling and exploration employment trends separated in 1984 as enhanced recovery techniques on existing fields and the development of the marginal fields increased the demand for drilling services. In fact, drilling employment levels during the first quarter of 1986 were the highest since 1982.

**1986 and Beyond**

The oil industry cutbacks were the greatest in exploration activities after the collapse in oil prices. For example, exploration activity, measured in terms of crew months, dropped over 60% in 1986 in Alaska. The figures for 1987 are preliminary, but indications are that exploration activities are slowly recovering as oil companies concentrate on further development of the existing producing fields and initial development of other known fields.

Next hardest hit by falling oil prices was drilling services. Drilling schedules were dramatically cut back resulting in the number of rigs working in the state falling from 22 in February 1986 to 6 by December 1986. Drilling employment fell from 1,434 to 965 over the same period.

The number of rigs operating in Alaska from December 1986 through July 1987 fluctuated between 6 and 9. Rig activity is expected to increase through the rest of 1987 and into 1988 as further North Slope development occurs. Among the additional drilling activities expected are enhanced recovery techniques at Prudhoe Bay and Kuparuk fields, the increase in production at the Lisburne field and the soon to be producing Endicott field.

### Conclusion

Since the development of the North Slope oil fields Alaska has become an oil giant among the U.S oil producing states. Alaska's oil production has increased ten fold in the past ten years while oil and gas employment has grown nearly three times. In 1986 the industry represented 4% of all jobs and 9% ($551 million) of total payroll in Alaska.

Besides direct employment the oil industry provides a limited secondary impact on employment in Alaska largely limited to expenditures of employees' payroll and the construction associated with the development of oil fields. Nearly all manufacturing and assembly of equipment used in the oil industry is done outside Alaska so economic impacts from that sector are small.

The oil industry in made up of several segments, each of which reacts differently to exploration and development schedules, which in turn are shaped by the level of and change in oil prices. Overall the production and miscellaneous oil field services segments have had employment increases from 1980 to 1985, and only small employment declines in 1986.

Employment levels in drilling and exploration services, on the other hand, have fluctuated up and down over the period depending upon exploration and development schedules, peaking during the early development stages of the Prudhoe Bay and Kuparuk fields.

Alaska's oil patch, like other oil patch states around the world, had major setbacks in 1986 but if oil prices remain at current levels Alaska's oil patch will recover and the state's economy will improve with it.

## Working in the Oil and Gas Industry

**By James Wilson**

The oil and gas industry is currently the keystone of Alaska's economy. This is, however, a relatively new natural resource activity in the state. The large scale development of the oil industry began less than twenty years ago with the North Slope oil lease sale in 1969. Although a prime mover of economic activity, the oil and gas industry directly employs fewer than 10,000 workers, or roughly 6% of private sector employment. Employment levels in other industries such as government, construction, trade, and services are very much dependent upon the economic stimulus from oil generated revenues and taxes.

**Although a prime mover of economic activity, the oil and gas industry directly employs fewer than 10,000.**

Most discussions of the oil and gas industry center on the extraction of the resource, which is the major part of the oil activity. Other economic components of the bigger picture include: the Trans-Alaska Pipeline System including the storage and tanker loading facilities at Valdez, refineries, and finished product bulk storage and distribution systems.

### Employment Levels in Oil and Gas

The oil and gas extraction industry is comprised of two primary components, 1) production, and 2) oil and gas field services (which include exploration and drilling). Currently 55% of the annual average employment is in the production segment and 45% is in the field services portion. Field services work is more seasonal than production activity and annual employment levels are more variable than in production. Table 1 lists occupations in mining for 1986 and forecasted occupations for 1991. (Oil and gas make up over 90% of these occupations)

Table 1
Occupational Employment for Mining

| OES Occupation Title | 1986 Employment | 1991 Employment | Percent of 1986 Total Industry Employment |
|---|---|---|---|
| OFFICERS AND MANAGERS | 599 | 600 | 6.40 |
| General Managers & Top Executives | 185 | 180 | 1.98 |
| Mining,Quarrying & Oil/Gas Well Managers | 136 | 144 | 1.45 |
| All Other Managers & Administrators | 278 | 276 | 2.97 |
| PROFESSIONAL AND TECHNICAL WORKERS | 2,626 | 2,625 | 28.07 |
| Accountants & Auditors | 240 | 234 | 2.57 |
| Civil Engineers | 142 | 136 | 1.52 |
| Drafters | 98 | 99 | 1.05 |
| Electrical/Electronic Engineering Technicianss | 84 | 81 | 0.90 |
| Geologists/Geophysicists/Oceanographers | 352 | 408 | 3.76 |
| Mechanical Engineers | 116 | 111 | 1.24 |
| Operations/Sys Researchers, Except Computer | 312 | 298 | 3.34 |
| Personnel/Training/Labor Rel Specialists | 100 | 102 | 1.07 |
| Petroleum Engineers | 261 | 250 | 2.79 |
| All Other Engineering Technicians/Technologists | 166 | 160 | 1.77 |
| All Other Engineers | 146 | 145 | 1.56 |
| All Other professional & technical workers | 609 | 601 | 6.50 |
| SALESPEOPLE | 50 | 54 | 0.53 |
| CLERICAL WORKERS | 944 | 975 | 10.09 |
| Bookkeeping, Acctg, & Auditing Clerks | 81 | 104 | 0.87 |
| General Office Clerks | 145 | 141 | 1.55 |
| Secretaries | 335 | 344 | 3.58 |
| Supervisors/Managers: Clerical/Administrative Support | 76 | 77 | 0.81 |
| SERVICE WORKERS | 150 | 168 | 1.60 |
| CRAFTS, OPERATORS, LABORERS | 4,985 | 5,029 | 53.29 |
| Blasters/Explosives Workers | 72 | 70 | 0.77 |
| Carpenters | 57 | 54 | 0.61 |
| Derrick Operators: Oil & Gas Extraction | 114 | 109 | 1.22 |
| Electricians | 41 | 39 | 0.44 |
| Helpers: All Other Construction Trades | 193 | 212 | 2.06 |
| Maintenance Repairers: General Utility | 117 | 131 | 1.25 |
| Mechanics: Mobile Heavy Equip, Except Engine | 157 | 159 | 1.68 |
| Operating Engineers | 413 | 397 | 4.42 |
| Rotary Drill Operators: Oil/Gas Extract | 287 | 275 | 3.07 |
| Roustabouts | 590 | 565 | 6.31 |
| Service Unit Operators | 163 | 156 | 1.74 |
| Supervisors: Construc/Extractive Workers | 276 | 282 | 2.95 |
| Truck Drivers: Heavy or Tractor Trailer | 110 | 107 | 1.18 |
| Welders & Cutters | 76 | 82 | 0.81 |
| Well Head Pumpers | 91 | 87 | 0.97 |
| All Other Extractive Workers, Except Helpers | 563 | 546 | 6.02 |
| All Other Helpers/Laborers/Material Movers: Hand | 696 | 666 | 7.44 |
| All Other Machinery Maintenance Mechanic | 119 | 123 | 1.27 |
| All Other Supervisors: Production/Construction/Maintenance | 130 | 125 | 1.39 |

Beginning in the early 1970s employment in oil and gas extraction grew rapidly. Annual average employment peaked at roughly 8,800 in 1985. With the collapse of oil prices in 1986, employment dropped by 4% from the 1985 level. Oil industry employment levels during 1986 and early 1987 were somewhat insulated from the oil price drop. Alaska's oil and gas producing companies are large corporations which had the ability to weather the crisis. Employment is expected to be stable during 1987 with slight increases predicted during the later part of the year.

### Working Conditions

Work can be challenging for those workers who are at drilling sites. The majority of drilling sites are in remote areas, which often require workers to spend several weeks or more of consecutive time away from home. Alaska has both onshore and offshore drilling rigs. All types of weather are encountered, especially extreme cold temperatures which sometime drop to −50 degrees during the winter months. Physical strength and stamina are required of workers. Tools used are often oily and dirty. The work may include night shifts and holidays since rigs operate 24 hours a day. Work shifts on oil rigs are usually 12 hours a day for seven or 14 consecutive days followed by seven days off.

Petroleum processing workers operate the refineries which manufacture crude oil into useful products such as gasoline and other fuels. The work may be either inside or outside depending on the job duty. Outdoor work would be in Alaska's harsh weather conditions while the indoor duties may involve some work in hot places. Since most plants have continuous production, swing shifts and weekend work are common.

### Hiring Practices

Most people begin working in the petroleum industry as petroleum helpers. These workers are more frequently known as roustabouts or laborers and perform a wide variety of oil field tasks. Helpers whose duties are performed on a drilling rig are called roughnecks, drillers helpers, or rotary floor workers. Employers prefer applicants with previous oil field or mechanical repair experience. There are an estimated 1,250 petroleum helpers employed in Alaska.

After several seasons of experience roustabouts and roughnecks can advance to become derrick operators or rotary drillers. Some employers feel that a mechanical background is important for rotary drillers to successfully diagnose underground conditions from sound, feel, and surface conditions. There are an estimated 430 rotary drillers employed in Alaska. Roughly 425 people work as derrick operators, service unit operators, well head pumpers, hoist and winch operators, and pump operators.

According to the Alaska Career Information System about 70 production workers are employed in Alaska's refineries. Most production workers enter as laborers. Other openings are filled by in-plant promotions based on seniority and ability.

The occupations featured in this discussion are unique to the oil industry and account for roughly 10% of the industries workers. It should be recognized that the majority of people in the oil and gas industry work in a wide variety of other managerial, technical clerical, and craft occupations (Table 1).

### Wages

The oil and gas extraction industry paid 13% of all private sector wages in 1986, but it contains only 6% of the private work force. This industry has the highest average monthly wage in Alaska ($5,398 vs. $2,221 for the private sector). The average monthly wage is higher in oil production ($6,160) than in field services ($4,484). People who work in oil and gas earn more than in other private sector industries because of some of the demanding jobs that involve long hours under harsh conditions. Workers in the oil industry in administrative and support jobs receive wages more comparable to similar jobs in other industries.

Petroleum helpers earn an average wage of approximately $14.50 per hour to start and up to $17.00 per hour with experience. Rotary drillers earn roughly $14-$20 per hour while derrick operators make between $18-$22 per hour.

### Job Opportunities

The forecast of occupational employment for 1991 reveals that there will be no appreciable growth in numbers of jobs. Many occupations will have fewer people. Job openings will basically be due to turnover. This lack of occupational employment growth is not just due to the current difficulty with the price of oil but also because production of Alaska oil is expected to decline during the 1990s. There is currently an extreme surplus of applicants for entry level oil and gas jobs, and a moderate surplus of workers for jobs requiring experience.

### Worker Injury Rates

The incidence rate for total injury and illness cases in the private sector in 1985 was 10.7 cases per 100 full time equivalent workers while the rate in Oil and Gas was 9.7 cases per 100 workers. Incidence rates of time loss cases (versus total injury and illness cases) for the two components of oil and gas extraction differ greatly. The oil production industry has one of the lowest time loss cases of any industry in Alaska, 0.7 cases per 100 workers.

In contrast, the oil and gas field services industry time loss case rate was 7.9 cases per 100 workers. Within the field services industry a few occupations account for a majority of time loss cases. Roustabouts (an estimated 590 workers) reported 133 of the 375 time loss cases in field services during 1986. While the oil and gas industry has an incidence rate lower than the state average a few occupations within the industry have a higher than average risk of injury.

The oil and gas industry is one of a few industries in which back injuries are not the dominant kind of injury. Instead the lower extremities are the parts of the body most frequently injured. Oil and gas has a high ratio of fractures. Historical data show that the oil and gas industry has a high proportion of time loss cases occurring after the eighth work hour of the shift. This is from the long shifts worked in the field services and shows that worker fatigue figures significantly in the occurrence of injuries.

### Worker Occupational Health

Crude oil is a mixture of complex organic compounds. In all stages of the extraction, manufacture, and transportation of oil and its derivative products proper precautions must be taken to minimize exposure to compounds known to cause illness and disease. Exposure to different substances can occur through skin contact or inhalation of vapors in the work environment. The oil industry provides training, protective clothing and respirators, and establishes procedures for workers to follow.

Hydrogen sulfide is an oil contaminant that may be present in the crude product which can cause respiratory arrest. Fortunately the industry has had long experience with this problem and how to take proper precautions.

Substances which are not components of oil or its derivatives also require proper handling by workers in the oil industry. These include special polyurethane and epoxy paints, used for pipes, and asbestos, which was used in the past as a pipe insulator but more likely now to be found in gaskets. Carbon monoxide can be a concern when workers are using air respirators.

Maintenance workers are most at risk to exposure to potential illness causing substances. Exposure occurs when closed systems are opened up or and when storage facilities are cleaned and maintained.

Occupational health will continue to be an issue, even though the oil and gas industry has a good safety and health record, because of the interest in long term health effects of working with complex chemical substances.

## Conclusion

The oil and gas industry drives the economy in Alaska. Although the oil and gas industry directly employs only 6% of the private workforce its impact on employment levels in other industries is profound. Workers in oil and gas, particularly those involved in the actual drilling and extraction earn rates of pay well above the average for private industry. The high rates of pay, however, go hand in hand with working under extreme conditions for long hours at remote locations. The industry has a worker injury rate below the state average but there are environmental health factors for some oil workers which are not present in other industries. Job availability in the future will depend upon turnover, as oil production is expected to decline in future years. Competition for jobs in the oil and gas industry will be high, especially for entry level work.

# Alaska's Employment Scene

**By John Boucher**

**Table 1**
**Nonagricultural Wage and Salary Employment**
**By Place of Work**
**Alaska**

|  | p/<br>8/87 | r/<br>7/87 | 8/86 | Changes From:<br>7/87 | <br>8/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 224,100 | 226,100 | 236,400 | -2,000 | -12,300 |
| Mining | 8,400 | 8,300 | 9,000 | 100 | -600 |
| Construction | 15,100 | 14,100 | 16,300 | 1,000 | -1,200 |
| Manufacturing | 19,500 | 21,600 | 20,800 | -2,100 | -1,300 |
| Food & Kindred Prod. | 13,200 | 15,200 | 14,400 | -2,000 | -1,200 |
| Lumber & Paper Prod. | 3,200 | 3,200 | 3,000 | 0 | 200 |
| All Other Mfg. | 3,100 | 3,200 | 3,400 | -100 | -300 |
| Trans. Comm. & Utilities | 19,100 | 19,400 | 19,600 | -300 | -500 |
| Trucking & Whseing. | 2,300 | 2,300 | 2,500 | 0 | -200 |
| Water Transportation | 1,500 | 1,500 | 1,800 | 0 | -300 |
| Air Transportation | 5,900 | 6,000 | 5,700 | -100 | 200 |
| Other Trans. Comm. & Utilities | 9,400 | 9,600 | 9,600 | -200 | -200 |
| Trade | 44,100 | 43,800 | 46,700 | 300 | -2,600 |
| Wholesale | 7,700 | 7,800 | 8,200 | -100 | -500 |
| Retail | 36,400 | 36,000 | 38,500 | 400 | -2,100 |
| Gen. Mer. & Apparel | 5,500 | 5,500 | 5,600 | 0 | -100 |
| Food Stores | 6,200 | 6,100 | 6,200 | 100 | 0 |
| Eating & Drinking Pl. | 13,800 | 13,500 | 14,800 | 300 | -1,000 |
| Other Retail Trade | 10,900 | 10,900 | 11,900 | 0 | -1,000 |
| Finance-Ins. & R.E. | 11,800 | 12,000 | 12,900 | -200 | -1,100 |
| Services & Misc. | 43,400 | 43,800 | 46,300 | -400 | -2,900 |
| Government | 62,700 | 63,100 | 64,800 | -400 | -2,100 |
| Federal | 18,800 | 18,800 | 18,400 | 0 | 400 |
| State | 17,600 | 17,900 | 19,200 | -300 | -1,600 |
| Local | 26,300 | 26,400 | 27,200 | -100 | -900 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics.
Government includes teachers im primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.

r/ Denotes Revised Estimates.

The Alaskan unemployment rate continued its summer decline in August as the statewide unemployment rate fell to 9.1% (Table 9). The drop of more than one-half of a percentage point means there were almost 2,000 less unemployed people in the Alaskan labor force in August than in July. The 9.1% unemployment rate was the lowest recorded since the summer of 1985.

The decline in the unemployment rate from July to August can be largely attributed to increased activity in the construction industry. Unemployment weeks claimed by those persons whose last employment was in construction fell nearly 20% from July to August. Since construction posted the largest employment gain over the month, 1,000 jobs from July to August, it can be inferred that unemployment weeks claimed dropped in part due to unemployed construction workers being able to find employment.

Increasing construction activity is evident throughout the state. Some of the most notable projects being the Red Dog mine access road in the Northwest Arctic Borough and the military construction project at Fort Wainwright. The release of impounded capital project money by the state has also served to stimulate additional construction activity.

While unemployment fell over the

month and the construction industry posted employment gains, other indicators pointed to a less than healthy Alaskan economy. The unemployment rate is falling, but part of the drop is due to people either dropping out of the labor force, because there are few employment opportunities, or people leaving the state to find employment elsewhere. Although construction's employment situation improved over the month other industries did not fare as well (Tables 1-7). The only other industry to post an employment gain was trade and that was done largely on gains in employment in food stores and eating and drinking establishments.

## Fisheries

August employment numbers in the food and kindred products sector showed a drop of 1,900 jobs, a much steeper decline than is usually experienced in this industry from July to August. (Table 1) The seafood processing industry, which accounts for 95% of food and kindred products employment, experienced a sharp downturn due to the disastrous pink salmon runs in southern Southeast Alaska.

Unlike fisheries in the northern parts of the state, which tend to peak in July, the peak employment time for fish processing in Southeast Alaska is August. Rising seafood processing employment in Southeast Alaska in August usually offsets the drop in employment experienced elsewhere in the state. This year Southeast seafood processing employment did not increase as it normally does (Table 6). Compared to last August, Southeast Alaska fish processing employment is down over 550 jobs. With no additional employment materializing in Southeast the downturn in the Southwest and Gulf Coast regions of the state brought down the statewide seafood processing employment totals.

The pink salmon runs in and around Ketchikan are so far below forecasted levels that the Alaska Department of Fish and Game was forced to close the fishery in mid-season. This is the first time since 1976 that this has occurred. Two factors have been blamed for poor returns in the Ketchikan area; a cold winter in 1985 which killed many of the salmon fry which would have returned this summer, and an unusually dry summer which may have forced the fish into deeper waters. The affects on Ketchikan processors has been evident. Two processors recently reported that they packed 20-30% of the volume that they do in a normal season. In addition Ketchikan Gateway Borough has applied for disaster status based on the impacts of the poor fishery.

### Table 2
### Nonagricultural Wage and Salary Employment By Place of Work Anchorage

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 8/87 | r/ 7/87 | 8/86 | 7/87 | 8/86 |
| Nonag. Wage & Salary | 105,900 | 106,350 | 111,700 | -450 | -5,800 |
| Mining | 3,350 | 3,300 | 3,450 | 50 | -100 |
| Construction | 8,050 | 7,700 | 8,750 | 350 | -700 |
| Manufacturing | 3,400 | 3,550 | 3,500 | -150 | -100 |
| Food & Kindred Prod. | 1,550 | 1,700 | 1,600 | -150 | -50 |
| Other Mfg. | 1,850 | 1,850 | 1,900 | 0 | -50 |
| Trans. Comm. & Utilities | 9,500 | 9,600 | 10,100 | -100 | -600 |
| Trucking & Whseing. | 1,500 | 1,500 | 1,650 | 0 | -150 |
| Water Transportation | 300 | 300 | 350 | 0 | -50 |
| Air Transportation | 3,100 | 3,100 | 3,150 | -0 | -50 |
| Other Trans. Comm. & Utilities | 4,600 | 4,700 | 4,950 | -100 | -350 |
| Trade | 25,200 | 25,050 | 26,550 | 150 | -1,350 |
| Wholesale | 5,550 | 5,600 | 6,150 | -50 | -600 |
| Retail | 19,650 | 19,450 | 20,400 | 200 | -750 |
| Gen. Merchandise | 1,850 | 1,800 | 1,900 | 50 | -50 |
| Food Stores | 3,100 | 3,050 | 3,050 | 50 | 50 |
| Eating & Drinking Pl. | 7,850 | 7,750 | 8,100 | 100 | -250 |
| Other Retail Trade | 6,850 | 6,850 | 7,350 | 0 | -500 |
| Finance-Ins. & R.E. | 7,400 | 7,700 | 8,250 | -300 | -850 |
| Services & Misc. | 24,050 | 24,100 | 25,500 | -50 | -1,450 |
| Government | 24,950 | 25,350 | 25,600 | -400 | -650 |
| Federal | 10,800 | 10,750 | 10,250 | 50 | 550 |
| State | 6,100 | 6,300 | 6,800 | -200 | -700 |
| Local | 8,050 | 8,300 | 8,550 | -250 | -500 |

### Table 3
### Nonagricultural Wage and Salary Employment By Place of Work Anchorage-MatSu

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 8/87 | r/ 7/87 | 8/86 | 7/87 | 8/86 |
| Nonag. Wage & Salary | 112,700 | 112,900 | 118,900 | -200 | -6,200 |
| Mining | 3,350 | 3,300 | 3,500 | 50 | -150 |
| Construction | 8,450 | 8,100 | 9,250 | 350 | -800 |
| Manufacturing | 3,550 | 3,650 | 3,650 | -100 | -100 |
| Trans. Comm. & Utilities | 10,250 | 10,300 | 10,750 | -50 | -500 |
| Trade | 26,900 | 26,650 | 28,200 | 250 | -1,300 |
| Finance-Ins. & R.E. | 7,950 | 8,250 | 8,800 | -300 | -850 |
| Services & Misc. | 25,300 | 25,250 | 26,850 | 50 | -1,550 |
| Government | 26,950 | 27,400 | 27,900 | -450 | -950 |

Elsewhere in the state, news in the fisheries industry is much more encouraging. Prince William Sound and

### Table 4
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Fairbanks

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 8/87 | r/ 7/87 | 8/86 | 7/87 | 8/86 |
| Nonag. Wage & Salary | 26,900 | 27,200 | 28,950 | -300 | -2,050 |
| Mining | 150 | 150 | 100 | 0 | 50 |
| Construction | 2,000 | 1,950 | 2,300 | 50 | -300 |
| Manufacturing | 600 | 650 | 650 | -50 | -50 |
| Trans. Comm. & Utilities | 2,800 | 2,800 | 2,950 | 0 | -150 |
| Trucking & Whseing. | 350 | 350 | 350 | 0 | 0 |
| Air Transportation | 1,000 | 1,000 | 1,050 | 0 | -50 |
| Other Trans. Comm. & Utilities | 1,450 | 1,450 | 1,550 | 0 | -100 |
| Trade | 5,750 | 5,800 | 6,300 | -50 | -550 |
| Wholesale | 900 | 900 | 1,000 | 0 | -100 |
| Retail | 4,850 | 4,900 | 5,300 | -50 | -450 |
| Gen. Mer. & Apparel | 550 | 550 | 550 | 0 | 0 |
| Food Stores | 700 | 700 | 750 | 0 | -50 |
| Other Retail Trade | 3,600 | 3,650 | 4,000 | -50 | -400 |
| Finance-Ins. & R.E. | 1,000 | 1,000 | 1,100 | 0 | -100 |
| Services & Misc. | 5,950 | 6,050 | 6,400 | -100 | -450 |
| Government | 8,650 | 8,800 | 9,150 | -150 | -500 |
| Federal | 3,050 | 3,100 | 3,050 | -50 | 0 |
| State | 3,250 | 3,300 | 3,550 | -50 | -300 |
| Local | 2,350 | 2,400 | 2,550 | -50 | -200 |

### Table 5
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Interior

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 8/87 | r/ 7/87 | 8/86 | 7/87 | 8/86 |
| Nonag. Wage & Salary | 31,300 | 31,300 | 33,550 | 0 | -2,250 |
| Mining | 300 | 300 | 300 | 0 | 0 |
| Construction | 2,300 | 2,200 | 2,550 | 100 | -250 |
| Manufacturing | 650 | 650 | 700 | 0 | -50 |
| Trans. Comm. & Utilities | 3,200 | 3,200 | 3,300 | 0 | -100 |
| Trade | 6,150 | 6,150 | 6,750 | 0 | -600 |
| Finance-Ins. & R.E. | 1,100 | 1,100 | 1,200 | 0 | -100 |
| Services & Misc. | 6,700 | 6,700 | 7,100 | 0 | -400 |
| Government | 10,900 | 11,000 | 11,650 | -100 | -750 |

Cook Inlet are both experiencing banner fishing years. Sockeye salmon was the species responsible in Upper Cook Inlet while the less valued but more plentiful pink salmon was double the expected catch in Prince William Sound.

Further good news for the fisheries industry was recently announced when the king crab harvest for the year ending July 1986 showed an increase of 60% over the 1985 harvest. This was the first over the year increase since 1980. The harvest was 27.2 million pounds, nowhere near the 100+ million pounds that was routinely harvested in the late 1970s, but an encouraging sign nonetheless.

King crab is an important product in terms of employment because it offers processors an opportunity to keep active during the fall and winter seasons, a traditionally slow time for seafood processors. However, the trend toward more offshore processing is affecting the king crab fishery just as it has other fin fish processing. According to Arni Thomson, executive director of the Alaska Crab Coalition, much of the recent investment in the crab fishery has been to convert "mud" boats—once used to carry drilling mud to offshore drilling rigs in the Gulf of Mexico—to catcher-processors.

These catcher-processors, which are generally based in Washington, are able to catch, cook, and freeze the crab without ever stopping at an Alaskan port to unload their cargo. Crab caught by catcher-processors who return to out-of-state ports without stopping in Alaska do not generate onshore processing employment in Alaska. In addition they don't pay Alaska taxes that help support the regulation of the crab fishery nor are state officials able to inspect the catch to insure that only legal crab are being taken. If catcher-processors are capturing a significant share of the total catch, employment numbers may not reflect the increase in catch because generally offshore processing employment is not counted by the Alaska Department of Labor.

## Other Industries

As indicated by unemployment claims data and an increase in employment over the month, the **construction industry** was one of the better performers in August. Geographically, the largest increases in construction employment over the month were in the Northern region (13.8%) and the Gulf Coast (5.5%) while construction in both Fairbanks and Anchorage increased at a 4.2% clip.

The Northern region is leading the pack largely due to the size and scope of the Red Dog mine access road. The project's impact on the Northwest Arctic Borough is also evident in the drop in the unemployment rate from 19.5% in July to 16.4% in August. Additionally, there has also been activity on the North Slope.

Elsewhere in the state, the Gulf Coast's major construction project remains the Seward prison. Fairbanks construction is benefitting from a variety of projects among them the South Fairbanks expressway, military construction, and the new Bureau of Land Management building. Anchorage is putting the finishing touches on the Glenn Highway upgrade while work continues on Lake Otis Parkway, the Performing Arts Center the Court Building and the Eklutna water project to name a few. Activity in all regions will begin to fall off next month as weather conditions become more difficult to work in the northern parts of the state.

Continued oil price stability has meant good news for the **oil and gas industry**. An additional drilling rig was put on by ARCO late in August. It is not reflected in the August estimates but should show up in September. Preparation for production at the Endicott field has also been a boost for oil and gas employment. The long term outlook for oil prices indicates that the underlying supply and demand factors point to a lower price for oil. Tension remains high in the Persian Gulf however and as long as there is a perceived threat to oil supplies the price of oil will tend to be higher than warranted by underlying economic factors. For further information on the oil industry, refer to other articles in this issue of *Trends*.

The **lumber and paper products** sector experienced no change in employment from July to August but continues to be one of the better performers in terms of year-to-year employment growth. The monthly change from July to August was concentrated in the timber industry hours and earnings data (Table 8). Average weekly hours and hourly earnings both increased in the timber industry as several firms returned to full strength after a temporary shutdown associated with the Fourth of July holiday.

**Table 6**
**Nonagricultural Wage and Salary Employment**
**By Place of Work**
**Southeast Alaska**

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | **8/87** | **7/87** | **8/86** | **7/87** | **8/86** |
| Nonag. Wage & Salary | 30,650 | 30,800 | 32,400 | -150 | -1,750 |
| Construction | 1,200 | 1,150 | 1,450 | 50 | -250 |
| Manufacturing | 5,300 | 5,250 | 5,700 | 50 | -400 |
| Food & Kindred Prod. | 2,100 | 2,000 | 2,650 | 100 | -550 |
| Lumber & Paper Prod. | 3,000 | 3,050 | 2,850 | -50 | 150 |
| All Other Mfg. | 200 | 200 | 200 | 0 | 0 |
| Trans. Comm. & Utilities | 2,550 | 2,500 | 2,550 | 50 | 0 |
| Trade | 4,850 | 4,900 | 4,900 | -50 | -50 |
| Wholesale | 400 | 400 | 350 | 0 | 50 |
| Retail | 4,450 | 4,500 | 4,550 | -50 | -100 |
| Finance-Ins. & R.E. | 1,200 | 1,200 | 1,250 | 0 | -50 |
| Mining, Services & Misc. | 4,550 | 4,600 | 4,750 | -50 | -200 |
| Government | 11,000 | 11,200 | 11,800 | -200 | -800 |
| Federal | 2,200 | 2,200 | 2,200 | 0 | 0 |
| State | 4,900 | 5,000 | 5,250 | -100 | -350 |
| Local | 3,900 | 4,000 | 4,350 | -100 | -450 |

**Table 7**
**Nonagricultural Wage and Salary Employment**
**By Place of Work**
**Gulf Coast**

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | **8/87** | **7/87** | **8/86** | **7/87** | **8/86** |
| Nonag. Wage & Salary | 22,800 | 23,700 | 24,450 | -900 | -1,650 |
| Mining | 850 | 850 | 900 | 0 | -50 |
| Construction | 1,200 | 1,150 | 1,550 | 50 | -350 |
| Manufacturing | 6,650 | 7,500 | 7,000 | -850 | -350 |
| Food & Kindred Prod. | 6,050 | 6,900 | 6,400 | -850 | -350 |
| All Other Mfg. | 600 | 600 | 600 | 0 | 0 |
| Trans. Comm. & Utilities | 1,300 | 1,350 | 1,350 | -50 | -50 |
| Trade | 3,750 | 3,850 | 3,950 | -100 | -200 |
| Wholesale | 600 | 650 | 650 | -50 | -50 |
| Retail | 3,150 | 3,200 | 3,300 | -50 | -150 |
| Finance-Ins. & R.E. | 650 | 650 | 700 | 0 | -50 |
| Services & Misc. | 3,500 | 3,600 | 3,650 | -100 | -150 |
| Government | 4,900 | 4,750 | 5,350 | 150 | -450 |
| Federal | 600 | 550 | 650 | 50 | -50 |
| State | 1,450 | 1,450 | 1,600 | 0 | -150 |
| Local | 2,850 | 2,750 | 3,100 | 100 | -250 |

While most Alaskan industries are experiencing employment declines over last year, lumber and paper products is up more than 6% from August 1986. Funding for the management of the Tongass National Forest at its present level is currently under scrutiny by the Congress and is coming under fire from environmental groups. At risk is an automatic appropriation of $40 million dollars to manage the Tongass. Should that appropriation be cut, the future viability of the forest products industry in Southeast Alaska would be in jeopardy.

**Hard rock mining**, another industry bucking the statewide trend toward falling employment, received good news when it was announced that Greens Creek mine on Admiralty Island near Juneau should be in full production by September of 1988. Currently the road linking the mine site to tidewater is being finished by a construction crew of 65 and an additional 65 employees are preparing for production. Estimates for employ-

## Table 8
## Alaska Hours and Earnings for Selected Industries [1] / [2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 8/87 | R/ 7/87 | 8/86 | P/ 8/87 | R/ 7/87 | 8/86 | P/ 8/87 | R/ 7/87 | 8/86 |
| Mining | 1122.31 | 1175.30 | 1165.32 | 50.6 | 51.1 | 51.7 | 22.18 | 23.00 | 22.54 |
| Construction | 1117.95 | 1027.94 | 1152.77 | 44.7 | 42.6 | 45.6 | 25.01 | 24.13 | 25.28 |
| Manufacturing | 502.61 | 44[illegible].47 | 473.76 | 45.9 | 45.8 | 47.0 | 10.95 | 9.77 | 10.08 |
| Food & Kindred Prod | 418.77 | 392.50 | 394.35 | 47.0 | 48.1 | 47.8 | 8.91 | 8.16 | 8.25 |
| Lumber & Paper Prod | 717.06 | 572.93 | 725.18 | 44.4 | 38.4 | 50.5 | 16.15 | 14.92 | 14.36 |
| Trans., Comm. & Util. | 550.96 | 566.28 | 566.18 | 35.8 | 36.3 | 37.2 | 15.39 | 15.60 | 15.22 |
| Trade | 366.28 | 374.18 | 376.19 | 34.2 | 35.2 | 33.8 | 10.71 | 10.63 | 11.13 |
| Wholesale | 524.72 | 521.53 | 513.25 | 39.1 | 39.6 | 37.3 | 13.42 | 13.17 | 13.76 |
| Retail | 313.29 | 323.52 | 329.62 | 32.6 | 33.7 | 32.7 | 9.61 | 9.60 | 10.08 |
| Finance-Ins. & R.E | 386.45 | 377.69 | 392.54 | 33.2 | 32.9 | 35.3 | 11.64 | 11.48 | 11.12 |

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] Excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and non-supervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

ment during production have been increased from 165 to 250. All of this is good news for the Juneau economy which is in the throes of a general downturn.

**The trade industry** experienced a slight increase in employment, but within the subsectors of trade indications were mixed. Eating and drinking establishments employment was up compared to July as was food store employment. On the other hand employment losses were registered in most other categories including building materials and house and garden supply stores, automotive dealers and miscellaneous retail trade. The increase in eating and drinking establishment employment was concentrated in fast food restaurants while other restaurant types held employment steady over the month. An increase in fast food restaurant employment during the summer is not an unusual phenomenon. Outdoor recreational activity in Alaska is at its peak in the summer and fast food restaurants benefit because they cater to those who want to get a quick inexpensive meal on the go.

**The transportation and services** sector employment both posted employment losses over the month. Losses in the transportation industry were limited to local passenger transportation modes such as school buses and smaller tour bus operations. In addition there was a slight drop off in employment in the telephone communications sector from July. Services employment dropped over the month in just about every category. Membership organizations, which includes groups such as labor unions and volunteer service organizations like Rotary and the Girl Scouts, is the sector taking the largest losses in services. The only services sector which seems to be weathering the current downturn is medical services.

**Finance-insurance and real estate** employment losses were largely in the banking sector and the insurance sector. Banking employment is currently 14% below last year's levels and with a merger of two of Alaska's larger banks in the works further consolidation can be expected in this industry.

**Government** employment was down 400 jobs from July as the new state fiscal year began to take its toll. Some of the employment losses in state government were seasonal as the University of Alaska system experienced a drop in employment due to school ending. Local government also had some seasonal losses in local school districts. Federal employment on the other hand grew slightly in August.

### Overview

Alaska's economy started its annual downturn in employment in August, a month earlier than normal, largely due to less employment than usual in the seafood processing sector. The peak July employment was 226,100, the lowest peak employment total for the state since 1982. Should the economy follow its normal seasonal pattern and no other major events change the course of the economy during the next four months, annual average employment will be in the neighborhood of 213,000, a drop of 4% from 1986. A drop of this magnitude was experienced from 1985 to 1986, only the losses were concentrated in the construction and mining sectors, while the 1986 to 1987 losses are more in the secondary industries. If any good news can be gleaned out of the current employment numbers it is that those sectors which led the rest of the economy into its current state, in particular mining and construction, are now experiencing better employment outlooks. If these two industries are again indicators of the direction of the Alaska economy a turnaround in the employment situation could be in store for Alaska in 1988.

## Table 9
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 8/87 | R/ 7/87 | 8/86 | P/ 8/87 | R/ 7/87 | 8/86 | P/ 8/87 | R/ 7/87 | 8/86 | P/ 8/87 | R/ 7/87 | 8/86 |
| Alaska Statewide ....... | 261,106 | 265,896 | 273,659 | 23,858 | 25,831 | 26,869 | 9.1 | 9.7 | 9.8 | 237,248 | 240,065 | 246,790 |
| Anch.-MatSu Region ..... | 135,084 | 136,618 | 142,038 | 11,595 | 12,356 | 13,399 | 8.6 | 9.0 | 9.4 | 123,489 | 124,262 | 128,639 |
| Anchorage Borough .... | 119,327 | 120,823 | 125,167 | 8,998 | 9,467 | 10,577 | 7.5 | 7.8 | 8.5 | 110,329 | 111,356 | 114,590 |
| MatSu Borough ....... | 15,757 | 15,795 | 16,871 | 2,597 | 2,889 | 2,822 | 16.5 | 18.3 | 16.7 | 13,160 | 12,906 | 14,049 |
| Gulf Coast Region ...... | 30,638 | 32,314 | 32,520 | 2,956 | 3,402 | 3,402 | 9.6 | 10.5 | 10.5 | 27,682 | 28,912 | 29,118 |
| Kenai Peninsula Br .... | 18,885 | 19,998 | 20,188 | 2,368 | 2,747 | 2,814 | 12.5 | 13.7 | 13.9 | 16,517 | 17,251 | 17,374 |
| Kodiak Island Borough . | 7,181 | 7,546 | 7,560 | 283 | 341 | 304 | 3.9 | 4.5 | 4.0 | 6,898 | 7,205 | 7,256 |
| Valdez-Cordova ......... | 4,572 | 4,770 | 4,772 | 305 | 314 | 284 | 6.7 | 6.6 | 6.0 | 4,267 | 4,456 | 4,488 |
| Interior Region ......... | 39,038 | 39,589 | 41,147 | 4,815 | 5,101 | 5,218 | 12.3 | 12.9 | 12.7 | 34,223 | 34,488 | 35,929 |
| Fairbanks North Star Br | 33,738 | 34,189 | 35,733 | 4,022 | 4,244 | 4,537 | 11.9 | 12.4 | 12.7 | 29,716 | 29,945 | 31,196 |
| Southeast Fairbanks ... | 2,294 | 2,302 | 2,374 | 299 | 291 | 279 | 13.0 | 12.6 | 11.8 | 1,995 | 2,011 | 2,095 |
| Yukon-Koyukuk ....... | 3,006 | 3,098 | 3,040 | 494 | 566 | 402 | 16.4 | 18.3 | 13.2 | 2,512 | 2,532 | 2,638 |
| Northern Region ....... | 8,278 | 8,127 | 8,484 | 962 | 1,075 | 1,089 | 11.6 | 13.2 | 12.8 | 7,316 | 7,052 | 7,395 |
| Nome ............... | 3,207 | 3,136 | 3,294 | 428 | 457 | 485 | 13.3 | 14.6 | 14.7 | 2,779 | 2,679 | 2,809 |
| North Slope Borough .. | 2,865 | 2,781 | 2,890 | 173 | 186 | 169 | 6.0 | 6.7 | 5.8 | 2,692 | 2,595 | 2,721 |
| Northwest Arctic Br .... | 2,206 | 2,210 | 2,300 | 361 | 432 | 435 | 16.4 | 19.5 | 18.9 | 1,845 | 1,778 | 1,865 |
| Southeast Region ....... | 35,216 | 35,808 | 36,818 | 2,572 | 2,885 | 2,753 | 7.3 | 8.1 | 7.5 | 32,644 | 32,923 | 34,065 |
| Haines Borough ....... | 965 | 982 | 992 | 83 | 93 | 72 | 8.6 | 9.5 | 7.3 | 882 | 889 | 920 |
| Juneau Borough ...... | 15,537 | 15,788 | 16,358 | 1,071 | 1,198 | 1,261 | 6.9 | 7.6 | 7.7 | 14,466 | 14,590 | 15,097 |
| Ketchikan Gateway Br | 7,067 | 7,149 | 7,322 | 491 | 517 | 460 | 6.9 | 7.2 | 6.3 | 6,576 | 6,632 | 6,862 |
| Pr. of Wales-Outer Ktch | 2,490 | 2,543 | 2,579 | 262 | 296 | 254 | 10.5 | 11.6 | 9.8 | 2,228 | 2,247 | 2,325 |
| Sitka Borough ........ | 4,155 | 4,244 | 4,375 | 266 | 322 | 317 | 6.4 | 7.6 | 7.2 | 3,889 | 3,922 | 4,058 |
| Skagway-Yakutat-Ang | 1,572 | 1,596 | 1,644 | 175 | 187 | 187 | 11.1 | 11.7 | 11.4 | 1,397 | 1,409 | 1,457 |
| Wrangell-Petersburg .... | 3,430 | 3,506 | 3,548 | 224 | 272 | 202 | 6.5 | 7.8 | 5.7 | 3,206 | 3,234 | 3,346 |
| Southwest Region ...... | 12,852 | 13,440 | 12,652 | 958 | 1,012 | 1,008 | 7.5 | 7.5 | 8.0 | 11,894 | 12,428 | 11,644 |
| Aleutian Islands ....... | 3,272 | 3,415 | 3,222 | 95 | 96 | 112 | 2.9 | 2.8 | 3.5 | 3,177 | 3,319 | 3,110 |
| Bethel ............... | 5,251 | 5,504 | 5,139 | 531 | 572 | 518 | 10.1 | 10.4 | 10.1 | 4,720 | 4,932 | 4,621 |
| Bristol Bay Borough ... | 474 | 491 | 461 | 21 | 17 | 17 | 4.4 | 3.5 | 3.7 | 453 | 474 | 444 |
| Dillingham ........... | 2,203 | 2,307 | 2,194 | 100 | 109 | 135 | 4.5 | 4.7 | 6.2 | 2,103 | 2,198 | 2,059 |
| Wade Hampton ....... | 1,652 | 1,723 | 1,636 | 211 | 218 | 226 | 12.8 | 12.7 | 13.8 | 1,441 | 1,505 | 1,410 |

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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ALASKA ECONOMIC

# TRENDS

November
1987

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# Federal Agency Employment in Alaska

The Military and Alaska's Economy

Federal Government Occupations in Alaska

Alaska's Employment Scene

# Alaska Economic Trends

*Steve Cowper*, Governor, State of Alaska

*Jim Sampson*, Commissioner
Department of Labor

*Frank Spargo*, Director
Administrative Services

*Chuck Caldwell*, Chief
Research and Analysis
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**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

**Alaska Economic Trends** is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

**We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact Dr. Edward W. Eboch, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.**

# Federal Agency Employment in Alaska

**By John Boucher**

The federal government has been the largest single employer in the state of Alaska since well before statehood. This includes all types of federal employment; military, civilian military, and federal agency employment. Since 1980 there has been a distinct shift in the total employment pattern of the federal government in Alaska. Agency employment, which is every federal function in Alaska that is nonmilitary in nature, has been declining at a steady pace. On the other hand military and civilian military employment has been on the upswing.

This article will examine federal agency employment patterns in Alaska and examine which federal agencies are prominent in Alaska and why. Following that will be an examination and analysis of federal government employment patterns over the last six years. The article will conclude with a brief outlook for federal agency employment in the state.

A clear understanding of what constitutes federal agency employment in this article is necessary. In this article, federal agency employment includes agencies such as the U.S. Department of the Interior, U.S. Department of Agriculture and U.S. Department of Transportation. No uniformed or civilian military are counted in these figures. The U.S. Coast Guard, which is under the U.S. Department of Transportation, is not included in these figures. For a detailed look at the military's role in Alaska, including the Coast Guard, see 'The Military in Alaska's Economy' in this issue of *Trends*.

## Federal Agency Employment— The Prominent Players

In 1986 federal agency annual average employment was 9,590. This represented about 4% of total wage and salary employment in Alaska and was larger than the annual average employment in Alaska's mining industry. Five agencies accounted for 86% of the 9590 workers in federal employment in Alaska. Those five agencies from the largest were: the U.S. Department of the Interior, the U.S. Postal Service, the U.S. Department of Transportation, the U.S. Department of Health and Human Services, and the U.S. Department of Agriculture (Table 1).

The activities of these five agencies gives some insight into the unique character of the federal government in Alaska. As the largest land owner in the state the federal government needs to manage the resources of its lands. Most of the Department of Interior's individual branches are charged with managing federal lands or the resources associated with those lands. Because the amount of federal lands in Alaska are so much greater than in other states the number of Department of Interior employees is relatively large.

**Since 1980 there has been a distinct shift in the total employment pattern of the federal government in Alaska.**

The second largest employer in the state, the U.S. Postal Service, is no real surprise because it is the largest federal employer in most states. The Postal Service also requires a large contingent of employees in Alaska because of the unique geographic characteristics of the state. Mail is delivered to far flung areas of the state and the Postal Service must have means to provide this service. In many areas of the state the volume of mail is much more than normal circumstances warrant. For example, in some remote areas it is common for residents to call up a grocer in a nearby larger town and order groceries to be sent through the mail.

The U.S. Department of Transportation's large complement of employees is related to another of Alaska's unique characteristics—its dependance upon air transportation.

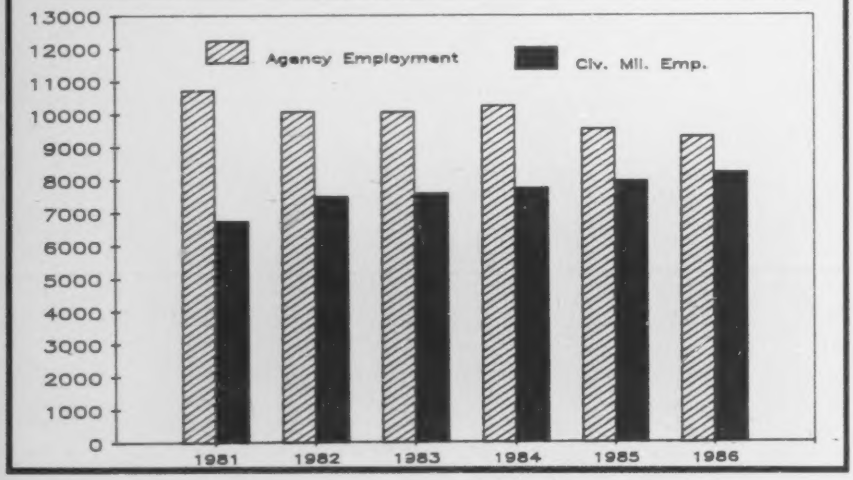
The Department's largest number of employees are in the Federal Aviation Administration. These employees man airports, provide inspections, and in general support Alaska's air transportation industry.

The U.S. Department of Health and Human Services large detachment of employees is to serve the public health needs of the state. Over ninety percent of all of Department's employees are in the Public Health Service in communities around the state. The PHS has traditionally been an important provider of basic medical service to rural Alaska, especially to the native population.

The U.S. Department of Agriculture's employees in Alaska serve in a similar capacity to the Interior's in that they are predominantly resource and land managers. The difference is that the lands that they are managing are the Tongass and Chugach National Forests. The Forest Service is almost 90% of all Department of Agriculture employment.

These five agencies comprised 86% of federal agency employment in 1986. A whole host of federal agencies make up the balance of federal agency employment in Alaska. Among the larger of the remaining groups are the Department of Commerce, the Department of the Treasury (IRS) and the Veterans Administration.

Figure 1
Federal Civilian Employment
Agency and Civilian Military 1981 – 1986



## Agency Employment Trends 1981—1986

Since 1981 federal agency employment has been on a downward trend. In the six year period, ending in 1986, 14% of agency employment was lost (Graph 1). Not all agencies declined during this period, in fact some agencies grew. In general though federal government employment was on a steady downtrend.

### Department of Interior

From 1981-1986 the Department of Interior's Alaska employment declined 20.3%, which was slightly greater than the average for all federal agencies. The real story in the Department, however, is the tremendous shifts that have occurred. In 1981 the Department of Interior's largest branches in terms of employment were the Bureau of Land Management with 42% of nearly 2,900 employees and the Bureau of Indian Affairs (BIA) with 30% of the total. No other branch had more than 10% of the annual average employment of the Department of Interior.

By 1986 the Bureau of Indian Affairs (BIA) had dropped to the fourth largest branch in Interior comprising only 10% of Interior's total employment. The Bureau of Land Management remained fairly close to its overall share with 41% of total Department of Interior employment, while two agencies, the National Park Service and Fish and Wildlife increased their shares of employment.

Several events occurred to shift the mix of agency employment. First, the Bureau of Indian Affairs (BIA) gradually turned over the responsibility for schools that were being run by the BIA to the State of Alaska. In 1981 an average of 630 employees were in schools operated by the BIA in Alaska. By the end of 1986, the BIA had no employees in BIA operated schools.

While the Bureau of Indian Affairs was divesting itself of schools in Alaska, legislation was passed which stimulated employment growth in Fish and Wildlife and the National Park Service. The Alaska National Interest Land Claims Act (ANILCA) established 16 new wildlife refuges in Alaska in 1982. The substantial addition of wildlife resources and habitat to be managed in Alaska required the addition of new staff and support personnel to accompany it. In response to ANILCA, Fish and Wildlife employment in Alaska has grown 62% since 1981 and become the second largest agency in the Department of Interior in Alaska.

The National Park Service (NPS) responded in a similar fashion to increasing demands for its services, more than doubling employment from 1981 levels. The additional load placed on Alaska's national parks such as Mt. McKinley and Glacier Bay National Monument by Alaska's burgeoning tourist industry was a cause for expansion of NPS employment. Alaska's 40% population increase from 1980-1985 also contributed to NPS employment growth.

**U.S. Postal Service**

In terms of number of jobs added and percentage growth the U.S. Postal Service (USPS) was far and away the fastest growing federal agency from 1981 through 1986. USPS employment grew 63% during this period, more than 700 jobs. The rapid expansion of Postal Service employment is largely explainable by the rapid population growth in the state in the early 1980s. When population increases business and personal mail volume also increase, generating a need for additional postal workers.

In addition to the increasing mail volumes, many areas such as Wasilla and Palmer expanded postal services. Areas where contracted carriers were used in the past were given city postal carriers. As the larger cities expanded, more stations and branches were required. In 1983 the Postal Service began an aggressive facilities upgrade program, identifying 70 facilities projects which needed attention. From 1983 to 1987 over $112 million was spent on new post offices and upgrading existing facilities. While most new and upgraded facilities resulted in a shift of workforce from existing facilities, the additional facilities added some workforce to the Postal Service.

In addition to increasing and upgrading facilities, the Postal Service in Alaska became a postal district in 1982. Accompanying that was an increase in staff to support the functions of the Alaska postal district which were previously performed in Seattle.

**U.S. Department of Transportation**

In 1981 the U.S. Department of Transportation was the second largest federal agency in Alaska. By 1986 Transportation employment had dropped 58% and had lost over 900 employees.

Two major events affected the Department of Transportation employment during this period. First, in 1981 the air traffic controllers union (PATCO) went on strike. Staffing levels were immediately affected and although the strike was declared illegal and the strikers were replaced, staffing levels took quite some time to return to normal.

**Since 1981 federal agency employment has been on a downward trend.**

The second event, the transfer of the Alaska Railroad from federal to state ownership in 1985, was of even more significance to U.S. Department of Transportation employment than the air traffic controllers strike. In 1984 the Alaska Railroad accounted for an annual average of over 700 employees in the Department of Transportation. These 700 employees just dropped off the federal payroll in 1985. Some but not all were picked up by the State of Alaska.

**Health and Human Services**

The Department of Health and Human Services has experienced a steady erosion of employment since 1981. Budget constraints, combined with a return of health care services to private control are the primary causes.

The Public Health Services (PHS) is the largest entity in Health and Human Services, comprising 90% of the agency's employment in the state. The two major factors affecting the PHS have been budget cuts and the passage of the Indian Self-Determination Act which allows regional native health corporations to assume the administration of Public Health Service facilities.

Under this arrangement what normally happens is the administrative people who are federal employees come immediately under private control. Staff employees retain their federal employment status to retain federal employment benefits. However, as these staff employees resign, retire or leave they are replaced by employees of the nonprofit corporation which administers the facility.

This takeover process of Public Health Service facilities has placed steady downward pressure on PHS employment since 1980. The first contract was in the Bristol Bay area service unit, the second was with Tanana Chiefs to take over the PHS Fairbanks facility (now Chief Andrew Isaac Health Center). The largest contract to date involved the takeover of Mt. Edgecumbe hospital. All of these have contributed to falling federal PHS and Health and Human Services employment in Alaska.

**Department of Agriculture**

In the Department of Agriculture the U.S. Forest Service (USFS) dominates the employment picture. The Forest Service has been in a gradual paring down process since 1980, much like the Public Health Service. This is primarily due to budget constraints placed on the USFS. The Forest Service consolidated support services to the regional office in Juneau which resulted in less employment in the USFS. In addition, some summer seasonal employment which was previously hired by the USFS is now contracted out. Examples of this type of employment are surveying and timber thinning.

While the Forest Service is often mentioned in the same breath as the timber industry the hardships of the timber industry in Southeast Alaska has minimally affected USFS employment.

Combined, the largest five agencies dropped 13.7% in employment from 1981 through 1986. Agencies outside of the largest five fared much worse, falling 20% during the same five years.

## Other Agencies

Most agencies, in addition to the largest five, experienced some declines in employment from 1981 to 1986, although a few agencies gained employment. Two agencies in particular grew during this period—The U.S. Department of the Treasury and the U.S. Department of Justice/U.S. Courts.

**Unless current agency plans change, Alaska can expect a continued slow decline in federal employment from 1986 levels.**

The Department of Treasury growth was in its largest agency, the Internal Revenue Service (IRS). This growth in the IRS could be expected in Alaska given the high rate of population growth, the high incomes, and the tremendous business growth that occurred in Alaska during the first half of the 1980s. Growth in the U.S. Courts/U.S. Department of Justice (they became two different departments in 1982) was also driven by an increased population.

Among the smaller agencies which experienced employment drops the U.S. Department of Commerce was one of the hardest hit by employment cutbacks. From 1981 to 1986 employment fell nearly a third. Some of the employment was lost from the National Weather Service where reorganizations made for some efficiencies and contracting of some technical services has taken place.

## Outlook for Federal Agency Employment

The outlook for the immediate future of nonmilitary related federal agencies in Alaska indicates a slow decline in federal employment the next several years. Unless current agency plans change, Alaska can expect a continued slow decline in federal employment from 1986 levels. If agency plans change or legislative or executive action dictates change, it is far more probable that federal agency employment will decrease as a result of that change rather than increase. Following are some of the expectations of the large agencies in Alaska for the next several years.

### Table 1
### Federal Employment by Agency
### 1981-1986

| Agency | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | Percent Change 1981-86 |
|---|---|---|---|---|---|---|---|
| Interior | 2,862 | 2,614 | 2,493 | 2,476 | 2,380 | 2,280 | -20.3 |
| U.S Postal Service | 1,328 | 1,425 | 1,628 | 1,893 | 1,979 | 2,169 | 63.3 |
| Transportation | 2,240 | 2,150 | 2,088 | 2,073 | 1,399 | 1,311 | -41.4 |
| Health & Human Services | 1,666 | 1,374 | 1,359 | 1,402 | 1,422 | 1,248 | -25.0 |
| Agriculture | 1,239 | 1,220 | 1,185 | 1,134 | 1,081 | 1,048 | -15.4 |
| Commerce | 600 | 578 | 577 | 500 | 437 | 406 | -32.3 |
| Treasury | 276 | 278 | 303 | 321 | 308 | 333 | 20.7 |
| General Services Administration | 145 | 116 | 115 | 117 | 118 | 117 | -19.3 |
| Veterans Administration | 146 | 101 | 113 | 127 | 136 | 139 | -4.8 |
| Justice | 115[1] | 68 | 66 | 67 | 86 | 100 | 41.7[2] |
| U.S. Courts | –[1] | 58 | 54 | 55 | 59 | 63 | –[2] |
| Housing & Urban Development | 62 | 57 | 51 | 43 | 47 | 49 | -21.0 |
| Small Business Administration | 28 | 25 | 26 | 29 | 30 | 30 | 7.1 |
| Office of Personnel Management | 22 | 31 | 21 | 21 | 20 | 21 | -4.5 |
| Labor | 20 | 11 | 13 | 13 | 13 | 14 | -30.0 |
| Federal Communications Commission | 13 | 9 | 9 | 11 | 10 | 13 | 0.0 |
| Selective Service | 0 | 0 | 2 | 7 | 5 | 6 | – |
| General Accounting Office | 8 | 7 | 7 | 7 | 5 | 3 | -62.5% |
| Interstate Commerce Commission | 1 | 1 | 1 | 1 | 1 | 1 | 0.0 |
| TOTAL | 10,771 | 10,117 | 10,111 | 10,297 | 9,536 | 9,351[1] | -13.2 |
| Total including civilian military | 17,544 | 17,643 | 17,732 | 18,075 | 17,524 | 17,592 | 0.3 |

[1] Reported as two departments, U.S. Dept. of Justice and U.S. Courts beginning 1982.

[2] Percentage change calculated combining Justice & U.S. Courts.

Overall, most of the major employment cuts by the Department of Interior have been completed. The turnover of the BIA schools to the State of Alaska are completed and the consolidation of the Bureau of Land Management has taken place. Of the two growth agencies, the National Park Service and Fish and Wildlife, neither expect to continue in the high growth mode of the last five years. The National Park Service may experience some slight growth if Alaska's tourist industry keeps increasing the burden on the National Parks. One possible area of growth given the recent interest in the mining industry in Alaska may be increased staffing levels at the U.S. Geological Survey to step up mapping efforts of suspected mineralized areas of Alaska.

The U.S. Postal Service has completed much of its expansion of force in Alaska. Most of the hiring that is anticipated will be to replace existing positions due to turnover or retirement. Even though population is declining in some of the areas which the Post Office expanded in the early 1980s, there are no plans to return to pre-1980s type postal service in these areas. Usually, once an area upgrades its postal services those services are there to stay despite population drops.

The Postal Service plans to continue to upgrade its facilities through the next several years. The planned construction budget for federal fiscal year 1988 is $3.35 million, down from $8.45 million in federal fiscal year 1987 but still a substantial amount of construction spending. The current plan is to concentrate on rural areas of the state where new "log cabin" post offices are being constructed. Areas where plans are under consideration for new facilities in the future include North Pole, Wasilla, Kotzebue, Barrow, Bethel and a whole host of other communities. However, it is anticipated that any new facilities brought on stream would result in an reorganization of existing work force rather than an expansion.

Most of the economies that have been made in the Department of Transportation are completed and the outlook for this department is for slight growth. The Federal Aviation Administration is currently under fire in the media for what appears to be an increasing number of incidents relating to safety in the skies. A bill was recently introduced which would require the FAA hire an additional 1,000 air traffic controllers. Whether the additional 1,000 air traffic controllers are hired and some come to Alaska or not, the fact remains that strong sentiment has been expressed to beef up the FAA staffing levels rather than cut back employment.

The outlook for the Public Health Service (PHS) in Alaska is one of continued contraction as more health services are contracted out to native corporation health organizations. Results of the contracting out have been favorable so there doesn't seem to be any major roadblocks to continuing to expand the practice. The question seems to be whether or not these private nonprofit corporations can find it financially feasible to take over the management of these Public Health facilities. Currently, facilities in Bethel and Kotzebue are under consideration for this arrangement which, if successful, would continue to erode PHS employment. In the meantime, turnover of current PHS employees at facilities currently contracted to private entities will contribute to declining employment.

In terms of construction budgets, the PHS plays a large role in many villages in constructing water and sewer projects, solid waste treatment facilities, and other public health construction projects. In cooperation with the Department of Housing and Urban Development (HUD), the Public Health Service provides journeyman and other skilled labor to these projects while the villages usually supply all of the unskilled and semiskilled labor that is needed. In the last several years the construction budgets for both HUD and PHS have been tapering off and 1988 is expected to be a continuation of that trend. This would mean that there will be less PHS construction employment both in the PHS itself and by villages who provide the employment for the construction of these public health projects.

Of the major agencies only the Department of Agriculture currently is in danger of losing a substantial portion of its employment. The Tongass Timber Supply Fund, which is used to manage the Tongass National Forest, is coming under severe Congressional scrutiny. The U.S. House of Representatives has passed a bill which would repeal the automatic appropriation to the Tongass. If the Tongass Timber Supply Fund were to be cut substantially, Forest Service employment would have to fall. For example if the $21 million dollar reduction which had been proposed were implemented, the Forest Service could expect to lose 100-125 employees.

The Alaska's Congressional delegation is opposed to any change in the Tongass Timber Supply Fund and that may have a very strong influence on Senate lawmakers. If the status quo is kept in regard to the Tongass, Forest Service employment is expected to remain stable during the next several years.

The major employment change in other agencies is three years away and will take place in the Department of Commerce. That will be the hiring of 500-600 workers to perform the 1990 Census of Population. No other single event on the horizon will affect federal employment to the degree that the 1990 Census will, albeit for a short time.

The National Weather Service and other agencies of the National Oceanic and Atmospheric Administration are expected to remain at their current levels of employment for the immediate future. The same is expected for the Internal Revenue Service and the Veterans Administration.

## Conclusion

While different agencies have had different experiences during the last five years, the overall trend in nonmilitary federal agency employment in Alaska has been downward. Most of those organizations which lost employment did so through reorganization of their agencies, oftentimes consolidating support services such as personnel and accounting into central offices or simply paring back their support staffs.

In addition to paring down support staff, a good number of agencies which lost employment are contracting out for services previously done in their own agency. In the extreme case, such as the Public Health Service, the Bureau of Indian Affairs Schools, and the Alaska Railroad, the federal government has relinquished control of these programs to either private nonprofit corporations or the State of Alaska.

It is important to remember that the federal employment numbers, if not carefully examined, can overstate the total employment lost to Alaska's economy. In addition, the military related civilian employment has been increasing over this period so that total federal employment has remained stable.

A good portion of the nonmilitary federal employment lost has been picked up by either private nonprofits or the State of Alaska. Whether it be through contracting out or paring support staff the overall trend has been clear, there has been steadily less nonmilitary federal employment in Alaska during the last five years with just a few agencies bucking the overall trend.

It seems that those agencies which have cut their staffs do not expect any more drastic staff reductions in the next several years with the possible exception of the Forest Service. On the other hand, those agencies which have been in the growth mode for the last several years are not expecting to increase as rapidly as they have been during the past five years. This points to a stabilization of federal employment at somewhere close to 1986s level with some agencies growing and others shrinking.

Recent economic events and a general unsteadiness in the world economy have put pressure on the Administration to cut the federal deficit to steady the economy. This could mean that all agencies will be asked to reexamine their budgets and try to pare away more employment. In that case the expectations for the next few years could change significantly. In some areas of federal employment though, such as the Federal Aviation Administration, there seems to be growing public sentiment to find money to fund these agencies. In any case while the future of federal government employment in Alaska looks steady at this writing, it could change on a moments notice.

# The Military and Alaska's Economy

**By Neal Fried and Greg Huff**

George Rogers, a noted Alaskan economist, once wrote that "by the 50s and 60s Alaska had become primarily an 'exporter' of military defense" . . . and that the military had become "the major industry in the state." It seems strange that the military would be considered an "industry" or an "exporter of defense," but in essence that is what the military in Alaska does. It exports defense to the rest of the nation. In return, Alaska receives economic benefits from the military in a variety of ways, from the paychecks spent in the local economy to payments to local businesses that supply goods and services to the military and to contractors building and repairing the military's infrastructure.

**The military in Alaska has considerably more economic clout than in most states.**

The economic benefits from the military's presence have been great and indeed the military was "the major industry in Alaska during the 1950s and 1960s." The military's economic might has declined since that time but still provides a solid economic foundation. During the early 1980s the impacts of the military on the Alaskan economy were obscured by the flood of oil dollars that ignited our economy into a period of unprecedented growth but by 1986 the rapid growth came to a screeching halt and the military was again in the limelight.

The military in Alaska has considerably more economic clout than in most states. For example, the number of active duty personnel and the amount of defense expenditures on a per capita basis are far higher in Alaska than in most other states. In this article we will explore the military's influence on Alaska's population and economy.

## The Military Population in Alaska 1980-1987

In 1980 the military accounted for 15.7% of Alaska's population. While the military population gradually increased during the early 1980s, the nonmilitary population in Alaska grew so rapidly that by 1985 the military represented only 12.5% of Alaska's population.

### Table 1
### Alaska's Military Population
### Active Duty, Civilian and Dependents
### 1980-1987

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Military as % of State Population | 15.7% | 15.1% | 14.3% | 13.4% | 13.1% | 12.5% | 13.2% | 13.4% |
| Total State Population [1] | 419,800 | 433,800 | 465,200 | 497,600 | 522,000 | 539,600 | 542,151 | 537,080 |
| Total Military Population | 65,828 | 65,485 | 66,344 | 66,747 | 68,143 | 67,314 | 71,747 | 72,110 |
| Dependents: Civilian [2] | 8,545 | 8,672 | 9,633 | 9,757 | 9,957 | 10,226 | 10,547 | 10,573 |
| Dependents: Active Duty [3] | 27,903 | 27,589 | 27,083 | 27,100 | 27,973 | 26,026 | 30,007 | 29,923 |
| Civilian Military (Incl. NAF/Exch.) [4] | 6,676 | 6,775 | 7,526 | 7,623 | 7,779 | 7,989 | 8,240 | 8,260 |
| Active Duty Military [3] | 22,704 | 22,449 | 22,102 | 22,267 | 22,434 | 23,073 | 22,953 | 23,354 |

Sources:

[1] Figures from Alaska Population Projection, Research and Analysis, Demographics. (1986 and 1987 low projection selected).

[2] Figures estimated from data in Impacts of Military Spending on the Economy of Alaska, Fiscal Years 1980 to 1986, from Alaska Air Command and data from Alaska Department of Labor. A ratio of 1.28 dependents for every military civilian was formulated from these sources.

[3] Alaska Department of Labor, R&A Demographics, unpublished 1987 data. Aleutian Islands figure estimated because it was not available at time of publication.

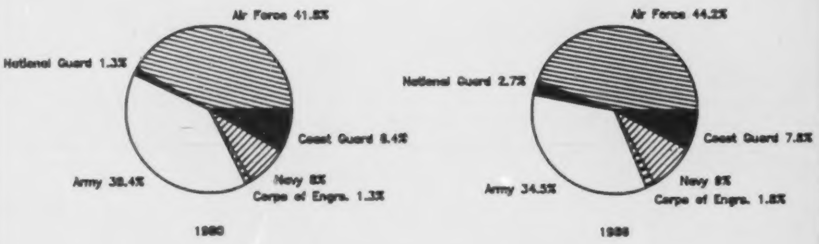
[4] Alaska Department of Labor, ES-202 files.

By 1987, Alaska's recession had prompted people to leave Alaska in search of work. At a time when more people were leaving Alaska than arriving, the military population continued to increase. By 1987 the military accounted for 13.4% of the forecast 537,080 people living in Alaska. This includes 23,000+ active duty personnel plus their 30,000 dependents and 8,000+ civil service personnel (Table 1).

The military in Alaska is represented by the Air Force, Army, and Navy and are all organized under the Department of Defense (DOD). The Coast Guard is organized under the Department of Transportation, but provides many defense related services and impacts a local economy in a fashion similar to that of the DOD agencies. Hence, the Coast Guard will be included in the military figures unless specifically noted that the data is not available. The Army's Corps of Engineers and the Army and Air National Guard work force figures are also included in the total military figures

**At a time when more people were leaving Alaska than arriving, the military population continued to increase.**

Figure 1
Military Labor Force by Type of Service
1980 and 1986



presented in this article (full-time active duty and civil service only).

In 1980 the Air Force was Alaska's largest military service, representing over 41% of the military's active duty and civil service personnel. This share increased to over 44% by 1986, due to a 12% increase in its work force and a decline in the number of Army active duty personnel over the period. The six year decline in the number of Army active duty personnel ended with the deployment of the 6th Light Infantry Division in Alaska in 1987. The deployment helped boost the number of Army active duty personnel by nearly 1,000 from year ago levels.

**In 1980 the Air Force was Alaska's largest military service.**

There were shifts in the relative work force figures among Alaska's "smaller" services as well (Figure 1). From 1980 to 1986 the National Guard, Navy, and Army Corps of Engineers increased their proportion of the total military work force as the Coast Guard share declined. This does not reflect a drastic cut back in Coast Guard personnel, but rather significant growth in the Corps of Engineers and National Guard civil service work force and the Navy's active duty work force.

The Corps of Engineers' civilian work force increased by 50% from 1980 to 1986, to over 550 (97% of the Corps work force is civilian). The National Guard full-time work force, both civilian and active duty personnel, doubled over the period. The number of Navy active duty personnel (including the Marines) has increased by one-third as its presence in the North Pacific intensifies.

Some of the increase in the National Guard's share of the military work force is attributable to the reclassification of certain active duty guardsman to full-time. There is a clear trend of expanding the guard and reserve by the military because it is cost effective. In late 1987 it was announced that the Alaska National Guard work force would increase by several hundred over the next year.

An important trend in the military work force data is the decrease in the ratio of active duty to civilian employees. For example, in 1980 there were 3.4 active duty personnel for each civilian employee. By 1986 this ratio had fallen to 2.8. The number of civilian personnel rose from 6,676 in 1980 to 8,240 in 1986, an increase of 23% (Table 1). Preliminary data for 1987 shows military civilian employment growth continued into 1987 but at a slower pace. The increase in the number of civilians is a trend consistent with the military's increased practice of hiring civilians to do work that in the past was done by active duty personnel.

### Military Payrolls

The military exerts its financial influence on the state in a number of

**Table 2**
**Military Expenditures in Alaska**
**FFY 1980-1986**

**(in millions of dollars)**

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|---|---|---|---|---|---|---|---|
| Payroll | $ 473.0 | $ 557.7 | $ 617.2 | $ 657.9 | $ 676.1 | $ 725.6 | $ 733.2 |
| Military | 319.8 | 390.3 | 440.6 | 464.4 | 469.9 | 503.1 | 516.0 |
| Civilian [1] | 129.6 | 146 | 156.1 | 168.7 | 182.1 | 189.7 | 181.5 |
| NAf/Exch | 23.6 | 21.4 | 20.5 | 24.8 | 24.1 | 32.8 | 35.7 |
| Construction | 78.6 | 94.1 | 104.8 | 141.2 | 135.1 | 204 | 180.3 |
| Operations & Maintenance | 303.1 | 308.3 | 366.5 | 380 | 362.6 | 389.1 | 493.3 |
| Other Procurement | 168.2 | 194.4 | 188.5 | 219 | 161 | 136.9 | 149.5 |
| Total | 1022.9 | 1,154.5 | 1,277 | 1,398.1 | 1,334.8 | 1,455.6 | 1,556.3 |
| Retirement payroll [2] | | | | | | 113.1 | 122.3 |

Source: Impact of Military Spending on the Economy of Alaska by Alaskan Air Command

[1] Includes Army, Air Force, Navy, Corps of Engineers, National Guard and Coast Guard

[2] Retirement payroll was not available until FFY 1985 and was not included in totals

ways. Military personnel spend part of their paychecks locally, they purchase goods and supplies in the local market, and they employ local contractors for many projects. These funds flow into the economy and either directly or indirectly support thousands of jobs in Alaska.

A study by the Institute of Social and Economic Research shows that the military from 1980 to 1983 accounted for 15% to 17% of all jobs in Alaska. It is likely that this contribution was several percentage points higher in 1987, particularly in light of defense expenditure increases during a period when other sectors were reducing expenditures. From Federal Fiscal Year (FFY) 1983 (October 1982 to September 1983) through FFY 1986 total military expenditures increased by over $200 million dollars to $1.5 billion (Table 2) and significant increases were expected in FFY 1987.

The largest and most direct economic benefit Alaska receives from the military is through its payroll. During FFY 1986 the payroll totalled $733 million and the military estimates that 86% of its payroll is spent in Alaska. Although military personnel may spend a high proportion of their paychecks in Alaska the amount that actually reaches the local economy is less given the self-sufficient nature of military operations.

Many goods and services of the active duty personnel and their dependents are either provided for or can be purchased at discount at the military postal exchanges (PX's) and commissaries. Housing, medical care, child care, and a variety of other services are provided by the military. This insulation factor is greater at remote and isolated installations than at urban installations.

In an urban setting the economy receives the benefit of the incidental spending made by the active duty personnel and their dependents. They may not buy the bulk of their groceries at the local grocery store but they do purchase odds and ends, buy gasoline, go to movies, and engage in many other activities that require spending part of their paycheck.

On a per capita basis the military's civilian employees provide more economic stimulus to the local economy than the active duty personnel. The civilians working on base are not usually given the many benefits received by active duty personnel and their dependents, hence more of their paycheck is spent in the local economy. In addition their paychecks are greater. In 1986 the average earnings of $31,000 of a military civilian employee was over $10,000 more than the average earnings of active duty personnel.

One major benefit received by active duty personnel that offsets the higher earnings of the civilians is off-base housing assistance. This benefit pumps millions of dollars into local housing markets. In Anchorage, for example, it has been estimated that 39% of the active duty personnel lived off base in May of 1987. They received from between $797 to $1,417 a month in housing assistance, depending upon rank. In Fairbanks approximately 30% of active duty personnel live off base. In Kodiak the most current figures show that 312 out of the 1,000 active duty Coast Guard live in off base housing.

**Military from 1980 to 1983 acounted for 15% to 17% of all jobs in Alaska.**

### Military Construction

Military construction projects impact the Alaska economy in a variety of ways depending upon type of construction, but it is estimated by the military that 50% of the total construction budget is spent in Alaska. The amount that actually circulates through the local economy is probably less because the contractors or the suppliers of construction goods usually buy materials from outside sources.

Still, the military's construction projects inject millions of dollars into the economy. The primary input to the Alaskan economy is the utilization of Alaskan workers that spend wages locally. From FFY 1980 to FFY 1986 construction expenditure in Alaska increased twofold, peaking at $240 million in 1985.

Military expenditures for operations and maintenance at their facilities have a greater impact on the local economy than does construction expenditures. Not only is the budget larger, but a higher proportion of the money is distributed into the local economy. Generally, the purchase of services by the military has a greater impact on the local economy than does the purchase of goods. Services are likely to be provided locally whereas goods are usually produced and/or purchased outside of Alaska. The military estimates that 72% of the operations and maintenance expenditures are spent locally. In FFY 1986 that amounted to over $350 million.

### Geographic Distribution

From Coast Guard stations in Ketchikan to Distant Early Warning (DEW) sites on the North Slope the military has over 50 installations located across the state. Many have no permanent crew, others are remote and isolated, and some are only staffed by a handful to a couple hundred personnel. Only a relative few have larger concentrations of military personnel.

Generally the larger the installation the larger the surrounding community. Of the 14 installations in 1987 having 100 or more personnel, four contain three-quarters of Alaska's active duty personnel (Table 3) and an even greater share of military's civilian workforce and military's dependent population (Figure 2). The two largest of the installations, Elmendorf Air Force Base (AFB) and Fort Richardson, are located in Anchorage, and the third and fourth largest, Eielson AFB and Fort Wainwright, are located in Fairbanks.

**Anchorage** is home of the Alaskan Air Command which serves as the senior military organization in the state and is headquartered at Elmendorf AFB. In 1987, 6,700 active duty personnel were stationed at Elmendorf—the highest count in the 1980s. The number of soldiers stationed at Fort Richardson totaled 4,860 in 1987, up 360 from 1986. This is the highest recorded level in the 1980s.

The military's civilian workforce also reached new highs in 1987. Over a

## Table 3
## Alaska
## Station Strength, Active duty
## By Census Area
## July 1,1980-July 1,1987

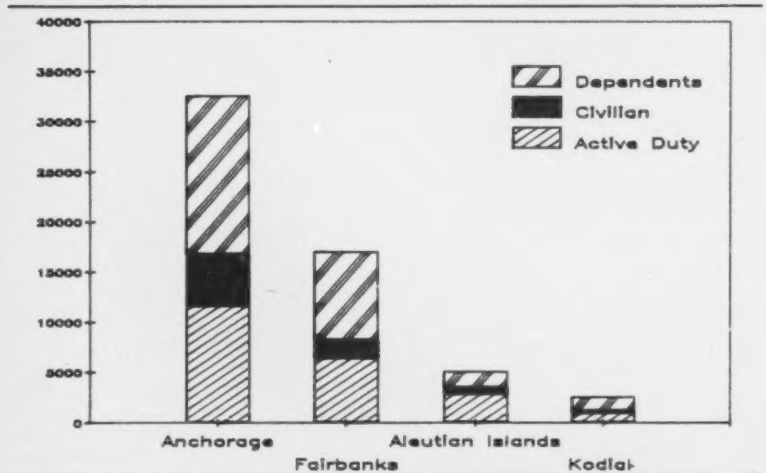
| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Total Alaska Active Duty | 22,704 | 22,449 | 22,102 | 22,267 | 22,434 | 23,073 | 22,953 | 23,354 |
| Aleutian Islands Census Area | 2,213 | 2,242 | 2,218 | 2,194 | 2,307 | 2,890 | 2,847 | 2,900[1] |
| Anchorage Borough | 11,298 | 10,833 | 10,955 | 10,531 | 10,904 | 10,829 | 10,807 | 11,700 |
| Bethel Census Area | 42 | 47 | 43 | 24 | 0 | 0 | 0 | 0 |
| Bristol Bay Borough | 329 | 351 | 344 | 311 | 273 | 300 | 291 | 275 |
| Dillingham Census Area | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fairbanks Northstar Borough | 5,481 | 5,529 | 5,133 | 5,841 | 5,882 | 5,912 | 5,938 | 5,452 |
| Haines Borough | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Juneau Borough | 293 | 357 | 292 | 341 | 368 | 316 | 235 | 223 |
| Kenai Peninsula Borough | 67 | 68 | 68 | 72 | 70 | 72 | 77 | 72 |
| Ketchikan Gateway Borough | 203 | 204 | 215 | 182 | 163 | 152 | 211 | 276 |
| Kobuk Census Area [2] | 17 | 18 | 17 | 12 | 0 | 0 | 0 | 0 |
| Kodiak Island Borough | 1,098 | 1,073 | 1,010 | 1,097 | 921 | 1,086 | 1,076 | 1,000 |
| Matanuska-Susitna Borough | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nome Census Area | 41 | 43 | 44 | 39 | 29 | 31 | 26 | 31 |
| North Slope Borough | 15 | 16 | 19 | 13 | 0 | 0 | 0 | 0 |
| Prince of Wales-Outer Ketchikan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sitka Census Area | 174 | 177 | 193 | 201 | 190 | 185 | 195 | 187 |
| Skagway-Yakutat-Angoon Census Area | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Southeast Fairbanks Census Area | 801 | 810 | 780 | 815 | 784 | 718 | 710 | 689 |
| Valdez-Cordova Census Area | 103 | 103 | 87 | 90 | 94 | 101 | 101 | 96 |
| Wade Hampton Census Area | 12 | 17 | 15 | 9 | 0 | 0 | 0 | 0 |
| Wrangell-Petersburg Census Area | 20 | 21 | 22 | 22 | 13 | 21 | 20 | 23 |
| Yukon-Koyukuk Census Area | 497 | 540 | 647 | 473 | 436 | 460 | 419 | 430 |

[1] Estimated. Count from Navy was not available at time of publication
Alaska Department of Labor, Research & Analysis, Demographics

[2] Reorganized as Northwest Arctic Borough in 1986.

Figure 2

Military Population: Active Duty, Civilian and Dependents for Selected Areas of Alaska 1987



seven year period the number of military civil service jobs increased from 4,290 to 5,119. The most recent military workforce increases in Anchorage were in response to several events, but most prominent were the activation of 962nd Airborne Warning and Control Squadron (AWACS) in 1984 and the arrival of a new F-15 squadron, and the deployment of the 6th Light Infantry Division in 1987.

The military installations located in **Fairbanks** support a quarter of Alaska's military population and contain over one-fifth of Fairbanks' population. The deployment of the 6th Infantry Division had the largest impact on Fort Wainwright and the Fairbanks area. Though the division was activated in 1986, the impacts on the active duty personnel level at Ft. Wainwright were not realized until 1987 when the ranks increased by 570.

Fort Greely, south of Fairbanks in the Southeast Fairbanks Census Area is the Army's third largest fort in the state. The deployment of the Light Infantry Division has not impacted the personnel levels at Fort Greely. The levels of active duty and military civilian personnel have been stable for the past six years. Overall, the military accounts for nearly 2,000 people in the area (Table 3), which represents 32% of the area's population.

The Adak Naval Station on remote Adak Island, far out in the **Aleutian** chain, is Alaska's fifth largest military installation. Since the Navy's recent buildup in the Northern Pacific its work force has increased by over 30% from 1980 to 1987. The big increases occurred when the Navy reactivated a full anti-submarine warfare aircraft squadron and an aircraft intermediate maintenance department in 1985. When the military population on Adak is combined with the military population of Shemya AFB near Attu (8th largest military installation in the state) the military accounts for over 55% of the population in the Aleutian Island Census Area.

**Kodiak** is home to Alaska's sixth largest military installation and largest U.S. Coast Guard installation in Alaska. In fact, it is the largest Coast Guard station in the nation. In 1987 over 20% of Kodiak's population was directly related to the Coast Guard—1,000 active duty, 230 civilian personnel and 1,400 (active duty) dependents. The number of active duty personnel has fluctuated from a high of 1,097 in 1983 to a low of 921 the following year. The number of civil service employees totaled 230 in 1987, down from nearly 300 in 1980.

Additional areas with a significant amount of Coast Guard personnel are **Ketchikan**, **Juneau** and **Sitka**—the 11th, 12th and 13th largest military installations in Alaska. In 1986 the Juneau Coast Guard station workforce was reduced by nearly 100 active duty personnel when the USCGC Planetree was relocated to Ketchikan. This transfer reduced the Coast Guard workforce by one-third in Juneau and increased Ketchikan's by 80%.

Other military installations with 100 or more personnel are Galena (9th largest) and Clear AFB (13th largest) in Alaska's **Yukon-Koyukuk** Census Area and at King Salmon (10th largest) in the **Aleutian Islands** Census Area. These Air Force installations house first line defense Air Force Squadrons. Personnel levels in the Yukon-Koyukuk Census Area peaked in 1982 at 647 and by 1987 had fallen to 430. Elimination of positions at the various DEW sites located throughout the area have been the primary cause of declines.

Impacts of military installations and related spending on a regional or local economy vary considerably. Overall, the impacts of the military are greatest in the urban areas of the state because the remote bases have a greater self sufficiency factor. The communities that appear to benefit the greatest from the military presence in Alaska are Fairbanks, Kodiak, and Anchorage (Table 4).

## Future Projects

Predicting the Pentagon's next move

**Table 4**
**Military Expenditure by Census Area**
**(In millions of Dollars)**

| | 1980 Total | 1986 Total |
|---|---|---|
| Alaska Total | $762.4 | $1,186.6 |
| Aleutian Islands Census Area | 89.6 | 169.2 |
| Anchorage Borough | 454.6 | 457.5 |
| Bethel Census Area | 3.1 | 4.7 |
| Bristol Bay Borough | 6.9 | 11.0 |
| Dillingham Census Area | 0.2 | 0.2 |
| Fairbanks Northstar Borough | 143.0 | 346.7 |
| Haines Borough | 0.9 | 1.0 |
| Juneau Borough | 5.1 | 4.8 |
| Kenai Peninsula Borough [1] | 3.7 | 27.8 |
| Ketchikan Gateway Borough | 1.0 | 1.3 |
| Kobuk Census Area [2] | 2.9 | 2.2 |
| Kodiak Island Borough [3] | 0.5 | 8.5 |
| Matanuska-Susitna Borough | 1.4 | 5.5 |
| Nome Census Area | 3.4 | 6.7 |
| North Slope Borough | 5.0 | 9.6 |
| Prince of Wales-Outer Ketchikan | 0.1 | 0.2 |
| Sitka Census Area | 0.3 | 2.8 |
| Skagway-Yakutat-Angoon Census Area | 0.1 | 0.2 |
| Southeast Fairbanks Census Area | 22.4 | 37.9 |
| Valdez-Cordova Census Area | 1.5 | 1.6 |
| Wade Hampton Census Area | 0.7 | 0.0 |
| Wrangell-Petersburg Census Area | 0.0 | 0.4 |
| Yukon-Koyukuk Census Area [4] | 16.9 | 87.0 |

Source: Federal Expenditures by state for FFY 1986 and Geographical Distribution of Federal Spending in Alaska FFY 1980.

[1] 1986 military expenditures included $24 million in procurement contract awards

[2] Reorganized as Northwest Arctic Borough in 1986.

[3] Change in military expenditures from 1980 to 1986 are mostly due to how Department of Defense Procurement Contract Awards through the Coast Guard were recorded.

[4] 1986 military expenditures included $75 million in Procurement contract awards.

(Note: these total expenditures do not match those in table 2 because non-appropriated and most Coast Guard funds are not included).

**Predicting the Pentagon's next move in Alaska is virtually an impossible task.**

in Alaska is virtually an impossible task. Some analysts predict that mounting federal deficits will eventually inhibit the Defense Department's ability to grow. Other analysts believe that Alaska is again becoming a location of growing strategic importance because of the Soviet Union's expanding presence in the Pacific, insuring future defense expansion in the state. Notwithstanding this type of speculation, there are a number of projects the Defense Department already has planned which will impact the state's economy.

The deployment of the 6th Light Infantry Division at Fort Wainwright near Fairbanks is the single largest undertaking. Although the activation of the brigade began this year, the deployment will not be completed until 1992. An additional 3,564 soldiers and 300 civil service jobs will be in place at Fort Wainwright, and an additional 300 uniformed personnel will be deployed at Fort Richardson in Anchorage by 1992.

Construction activity on Fort Wainwright will accompany the deployment of the brigade. The Fairbanks North Star Borough's Community Research Center estimates the construction work force will reach 585 in 1988 and peak at 755 in 1989. The Center has also estimated that deployment of the division will create an additional 1490 direct and indirect nonmilitary jobs in Fairbanks by 1992.

The deployment of the division will reverse the diminishing military role in Fairbanks; bringing the area's total military strength up to levels of the late 1960s and early 1970s. But its relative importance to Fairbanks' economy will not reach historical levels because the local economy has broadened considerably since the discovery of oil in Prudhoe Bay.

Another sizeable military undertaking will be the construction and operation of a $450 million over-the-horizon backscatter radar system. This radar will give the Air Force the ability to provide long-range surveillance of aircraft and missiles. Construction of the radar will take place in the vicinity of the Interior communities of Tok (the receiver site) and Gulkana (the transmitter site). Road work is planned for 1988 with a peak construction work force of 350 by 1989-1990. The project is expected to go into operation by 1992. Approximately 60 operations personnel will be stationed in both Gulkana and Tok (30 civilians and 30 military personnel). An additional 315 people will operate the backscatter's operational center at Elmendorf AFB (expected to be mostly military personnel).

New radar systems in Alaska do not end with the backscatter: major work is being performed on two other systems. Alaska's DEW line (Defense Early Warning System) is being modernized. Seven of the 31 DEW line sites are located in Alaska. The total cost of the project, which includes the sites in Canada, is $1.65 billion. The project is expected to be completed by 1992 with fewer personnel needed to run the sites. Presently the majority of these personnel are private contract workers.

On Amchitka Island, in the Aleutians, the Navy is building an over-the-horizon backscatter radar. Work began on the Amchitka radar in May, and presently the work force on this project has reached 140. The completion date is expected to be the summer of 1988.

In addition to Adak, the number of Navy ships visiting Alaska ports has been on the increase. Over the past two years there have been numerous unsubstantiated rumors in a number of communities that the Navy is planning to establish a new naval station in Alaska. What might lend more credence to these rumors now is the fact that Alaska's Senator Stevens announced that he had invited the Navy to assess any potential new home ports in Alaska for Navy vessels. The Navy toured the state in late October. Ketchikan has also been mentioned for the location of a submarine test facility.

On the down side the Kodiak Coast Guard Station may be experiencing major personnel changes during the next three to six months which will result in some cutbacks in staffing. A contract will be awarded soon to take over the maintenance of the station. Up to now, 220 uniformed and civil service personnel (almost equal in number) performed this work. The affected Coast Guard personnel will be reassigned to new positions in Kodiak

## Table 5
## Defense Expenditures and Active Duty Military
## By State
## 1986

| | Per Capita Defense Expenditures | Per Capita Defense Procurement Contracts | Defense Wages & Salaries | Active Duty Military by State | Ratio of Resident Population/ Active Military |
|---|---|---|---|---|---|
| U.S. | $ 939 | $ 613 | $ 127 | 1,366,866 | 175 |
| Alabama | 841 | 392 | 173 | 23,096 | 174 |
| ALASKA | 2,223 | 1,062 | 525 | 20,375 | 26 |
| Arizona | 1,172 | 791 | 122 | 20,704 | 154 |
| Arkansas | 621 | 374 | 76 | 9,748 | 242 |
| California | 1,494 | 1,038 | 179 | 204,822 | 129 |
| Colorado | 1,080 | 579 | 178 | 36,914 | 88 |
| Connecticut | 1,880 | 1,703 | 70 | 6,526 | 486 |
| Delaware | 676 | 355 | 118 | 4,662 | 133 |
| District of Columbia | 2,766 | 1,222 | 736 | 12,710 | 49 |
| Florida | 888 | 485 | 125 | 73,140 | 155 |
| Georgia | 1,055 | 575 | 192 | 64,390 | 93 |
| Hawaii | 2,341 | 530 | 833 | 46,973 | 22 |
| Idaho | 305 | 62 | 80 | 5,647 | 178 |
| Illinois | 304 | 150 | 65 | 40,874 | 282 |
| Indiana | 602 | 451 | 61 | 6,576 | 836 |
| Iowa | 263 | 204 | 17 | 399 | 7,228 |
| Kansas | 1,156 | 792 | 149 | 23,627 | 104 |
| Kentucky | 479 | 144 | 144 | 40,782 | 91 |
| Louisiana | 566 | 333 | 85 | 25,710 | 174 |
| Maine | 782 | 498 | 99 | 5,382 | 216 |
| Maryland | 1,589 | 1,016 | 235 | 35,687 | 123 |
| Massachusetts | 1,652 | 1,498 | 58 | 9,417 | 618 |
| Michigan | 347 | 257 | 34 | 8,773 | 1,036 |
| Minnesota | 616 | 546 | 22 | 859 | 4,881 |
| Mississippi | 990 | 624 | 142 | 16,029 | 163 |
| Missouri | 1,343 | 1,095 | 97 | 16,072 | 313 |
| Montana | 291 | 76 | 75 | 3,728 | 222 |
| Nebraska | 480 | 141 | 135 | 12,794 | 126 |
| Nevada | 573 | 147 | 126 | 9,744 | 96 |
| New Hampshire | 920 | 459 | 183 | 4,122 | 242 |
| New Jersey | 619 | 423 | 81 | 18,974 | 399 |
| New Mexico | 946 | 381 | 216 | 16,421 | 88 |
| New York | 635 | 557 | 31 | 21,982 | 809 |
| North Carolina | 606 | 165 | 176 | 98,702 | 63 |
| North Dakota | 760 | 338 | 194 | 11,274 | 61 |
| Ohio | 644 | 484 | 65 | 13,815 | 778 |
| Oklahoma | 726 | 235 | 200 | 31,115 | 106 |
| Oregon | 255 | 126 | 31 | 782 | 3,436 |
| Pennsylvania | 548 | 357 | 79 | 6,711 | 1,765 |
| Rhode Island | 764 | 403 | 146 | 4,037 | 240 |
| South Carolina | 810 | 154 | 262 | 44,373 | 75 |
| South Dakota | 464 | 180 | 116 | 5,854 | 121 |
| Tennessee | 403 | 237 | 48 | 10,991 | 433 |
| Texas | 1,013 | 649 | 128 | 127,176 | 129 |
| Utah | 1,012 | 484 | 236 | 6,172 | 267 |
| Vermont | 347 | 228 | 32 | 74 | 7,230 |
| Virginia | 2,347 | 934 | 598 | 96,588 | 59 |
| Washington | 1,122 | 566 | 209 | 43,669 | 101 |
| West Virginia | 137 | 54 | 22 | 441 | 4,390 |
| Wisconsin | 278 | 204 | 26 | 912 | 5,236 |
| Wyoming | 466 | 182 | 109 | 3,747 | 136 |

Sources: U.S. Department of Commerce, Bureau of Census, Federal Expenditures by State for Fiscal Year 1986. Statistical Abstract of the United States, 1987.

Note: Active duty military data is based on Federal Fiscal Year 1985.

or to other facilities, and some of the civilians may be hired by the contractor, but they expect there will be a net loss in positions. The savings to the military will be primarily in the form of lower wages and benefits. The impact to the economy is unclear but local spending should increase since the contractor's employees will not receive the benefit of the military commissary and other support.

Projecting military activities is a particular challenge because neither the state's nor the nation's economy dictates future trends as much as national and international politics. Budgets from one year to the next are never assured but given the military's intentions as presented above, its presence in Alaska will undoubtedly grow during the next two to three years. The deployment of the Light Infantry Division in Fairbanks alone guarantees this and other evidence suggests a growing military presence. In some industries such as construction, defense related projects may represent the major impetus for growth. In communities such as Fairbanks, Tok and Gulkana the military presence may mean the difference between a shrinking or growing economy.

**In 1986 military retirement benefits paid to Alaskans totaled $58 million.**

### A National Comparison

In defense dollars received by states in FFY 1986, Alaska ranks only 36th but given our population base, the military's presence in Alaska is one of the most prominent in the nation. There is one active duty military person for every 175 people in the nation, compared to a ratio of 26 people for every active duty military person in Alaska. Alaska is second only to Hawaii in the number of soldiers on a per capita basis.

The level of expenditures clearly illustrates how pervasive the military's presence is in Alaska. Defense dollars per capita spent in Alaska are over twice as high as the national average, fourth highest among states. Alaska is fifth highest when ranking the value of procurement contracts on a per capita basis, although Alaska manufactures little or no military hardware. Military procurement in Alaska represents only the amount spent to provide supplies, services and construction.

For wages and salaries paid by the Department of Defense the numbers become more striking. Including uniformed and military civilians, Alaska receives four times the amount in wages and salaries on a per capita basis as the national average—$525 versus $127. The proportionately larger military presence explains most of the difference but cost of living adjustments for military civil service workers and the active duty personnel provides an additional boost to Alaska's wages. Federal civil service workers in Alaska receive a tax free 25% cost of living adjustment and the uniformed soldiers receive a cost of living adjustment which varies according to their rank.

Even after the military personnel leave the service, a portion of their retirement and disability dollars continues to be spent in the economy. In 1986 miliary retirement benefits paid to Alaskans totaled $58 million, which represents $108 for every Alaskan. This figure is 49% higher than the national average and puts Alaska in tenth place among the states.

Between 1980 and 1985 the number of uniformed military in Alaska and the nation has grown a little less than 1%, while the civilian military work force has not been quite as stagnant. Alaska's military civilian work force grew slightly more rapidly than the nation's, 14% versus 12%. Defense expenditures in the nation have grown slightly faster than in Alaska, growing 48% compared to 41% in Alaska. (These figures represent FFY 1981-1986 and are not adjusted for inflation). This trend could be reversed in the near future because of planned defense expenditures in the state.

### Conclusion

Since Alaska "exports defense" to the rest of the nation it in turn receives economic benefits from the military through the millions of dollars in wages and other expenditures in the state. Although the military's economic might in the 1980s is not what it was in the 1950s and 1960s, its influence was on the increase by the mid 1980s.

Impacts of military installations on a regional or local economy vary considerably, but overall, the impacts are greatest in the urban areas of the state because the remote bases have a greater self-sufficiency factor, which insulates it from the local economy. Hence, the communities that appear to benefit the greatest from the military in Alaska are Fairbanks, Kodiak and Anchorage, where over three-quarters of the military's population is located.

In 1987, the military accounted for over 13% of Alaska's population. This represented some 62,000 people located in over 50 installations from Ketchikan to Barrow. Of these, 14 installations had 100 or more personnel with the largest located in Anchorage, Fairbanks, Adak, and Kodiak.

While other economic factors were on the decline the military population and expenditures were on the increase. Because of Alaska's strategic location it is likely that the military's economic influence will continue to increase through the decade.

# Federal Government Occupations in Alaska

**By James Wilson**

The federal government is one of the largest employers in Alaska. Roughly 18,000 people (excluding military but including civilian military) are employed in a wide range of occupations. Federal employees work in every area of the state. The skill level of people employed by the federal government ranges from laborers and clerical workers to technicians and scientists.

## Applying for Federal Jobs

The United States Office of Personnel Management, located in Anchorage, is the agency responsible for processing applications of persons seeking employment with federal government agencies. With some exceptions all the processing of applications for employment and the evaluation and testing of applicants is done in that office. The Coast Guard and Forest Service offices in Juneau have been granted limited authority to test and evaluate applicants. A clerical skills test is given weekly in Juneau.

**Table 1**
**Federal Civilian Employment in Alaska**
**Occupations with 100 or more persons**
**October 1986**

| Occupational Title | Workers |
|---|---|
| Traffic, shipping, and receiving clerks | 723 |
| All other secretaries | 593 |
| All other professional, paraprofessional and technical workers | 578 |
| All other helpers, laborers, material movers. | 555 |
| Airplane dispatchers and air traffic controllers | 539 |
| Mail carriers, postal service | 481 |
| All other clerical & admin support workers | 411 |
| Biological scientists | 393 |
| Typists | 388 |
| Registered nurses | 302 |
| Clerks, postal service | 283 |
| Stock clerks - stockroom, warehouse or storage yard | 278 |
| Bookkeeping, accounting, and auditing clerks | 254 |
| Electrical/electronic engineering technicians and technologist | 251 |
| Civil engineers, including traffic | 237 |
| All other legal assistants and technicians, except clerical | 234 |
| Maintenance repairers, general utility | 232 |
| First line supervisors - clerical & admin support | 221 |
| All other engineering and related technicians and technologist | 210 |
| General office clerks | 201 |
| Postmasters and mail superintendents | 194 |
| Purchasing agents, exc wholesale and retail trade and farm | 189 |
| Geologists, geophysicists, and oceanographers | 177 |
| Compliance officers/enforcement inspectors, except construction | 175 |
| First line supervisors - mechanics, installers | 170 |
| Forest and conservation workers | 162 |
| Personnel, training, and labor relations specialists | 151 |
| Tax examiners, collectors and revenue agents | 148 |
| Foresters and conservation scientists | 148 |
| All other physical and life science technicians and technologists | 146 |
| Carpenters | 138 |
| Personnel clerks, except payroll and timekeeping | 124 |
| Operating engineers | 122 |
| Mobile heavy equipment mechanics, except engines | 121 |
| Systems analysts, electronic data processing | 118 |
| Biol, agric, and food technicians and technologists, exc health | 116 |
| All other motor vehicle operators | 105 |
| Plumbers, pipefitters and steamfitters | 102 |
| Accountants and auditors | 100 |

Source: U.S. Dept. of Labor, Occupational Employment Statistics.

People interested in federal employment can begin by contacting the Federal Job Information Center, 701 "C" Street, Box 22, Anchorage, Alaska 99513. A recorded informational message can be called at (907) 271-5821. The Job Information Center is open for limited hours: Tuesday through Thursday from 11:00 am to 1:00 pm. Individual personal phone service is available by calling (907) 271-3617.

Figure 1

Government Employment in Alaska
Annual Average for 1977 to 1986

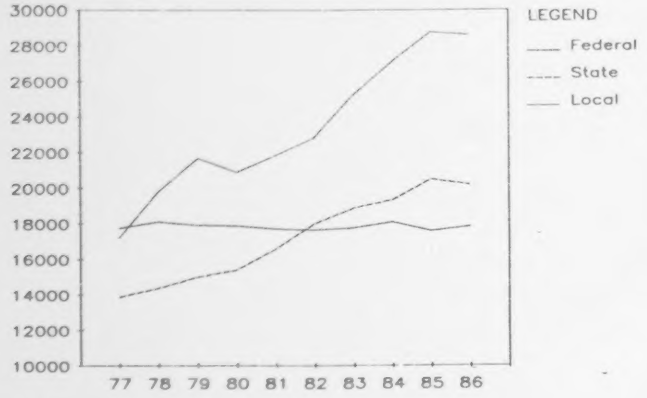


**Table 2**
**Annual Average Federal Civilian Employment**
**by Federal Agency**
**Alaska 1986**

| Agency | 1985 | 1986 | 1986 Percent of Total |
|---|---|---|---|
| Army | 3,714 | 3,875 | 22.0 |
| Air Force | 2,563 | 2,591 | 14.7 |
| Interior | 2,380 | 2,280 | 13.0 |
| U.S. Postal Service | 1,979 | 2,169 | 12.3 |
| Transportation [1] | 1,631 | 1,576 | 9.0 |
| Health & Human Services | 1,422 | 1,248 | 7.1 |
| Agriculture | 1,081 | 1,048 | 6.0 |
| Army & Air Force Exchange | 880 | 906 | 5.2 |
| Navy | 538 | 550 | 3.1 |
| Commerce | 437 | 406 | 2.3 |
| Treasury | 308 | 333 | 1.9 |
| Veterans Administration | 136 | 139 | 0.8 |
| General Services Administration | 118 | 117 | 0.7 |
| Justice | 86 | 100 | 0.6 |
| United States Courts | 59 | 63 | 0.4 |
| Defense, not Armed Forces | 62 | 53 | 0.3 |
| Housing & Urban Development | 47 | 49 | 0.3 |
| Small Business Administration | 30 | 30 | 0.2 |
| Office of Personnel Management | 20 | 21 | 0.1 |
| Labor | 13 | 14 | 0.1 |
| FCC | 10 | 13 | 0.1 |
| National Labor Relations Board | 5 | 6 | 0.0 |
| General Accounting Office | 5 | 3 | 0.0 |
| Interstate Commerce Commission | 1 | 1 | 0.0 |
| Total | 17,524 | 17,592 | 100.0 |

[1] Includes Coast Guard
Source: Alaska Dept. of Labor, ES202.

Individuals are hired for federal positions from registers of eligible applicants. To begin, a person should find out which positions have vacancies. One source of this information is the federal job opportunities list, produced regularly by the Office of Personnel Management. Applicants may apply for positions during the filing period posted for each job title.

Once the application form has been submitted it is evaluated and the individual is given a score which determines their rank on the list. Written tests are required for many positions. Persons who are certified as eligible for positions are encouraged to contact the individual agencies regarding specific positions. Each agency does its own hiring from the register of applicants.

## Federal Government Occupations

The occupations with 100 or more persons are listed in Table 1. The proportion of professional and technical jobs and production, construction, and operating occupations in Alaska are compared to the national levels in Figure 1.

Most major departments of the executive branch of the federal government are represented in Alaska (Table 2). It is the armed forces, however, which employ the greatest number of civilian workers. Although federal workers are employed in every area of the state the great majority of them are located in Alaska's major urban centers (Table 3). Nearly one half of the federal employees are civilians working for the armed forces.

Job openings will result both from employee turnover and the needs of a slowly growing workforce. For some occupations, opportunities exist nationwide while they may be somewhat limited in Alaska. Table 4 is an extract of some job listings from the October 13 Federal Job Opportunities List.

Figure 2

Percent Distribution of Federal Employment by Occupationl Group Alaska & U.S. October 1985

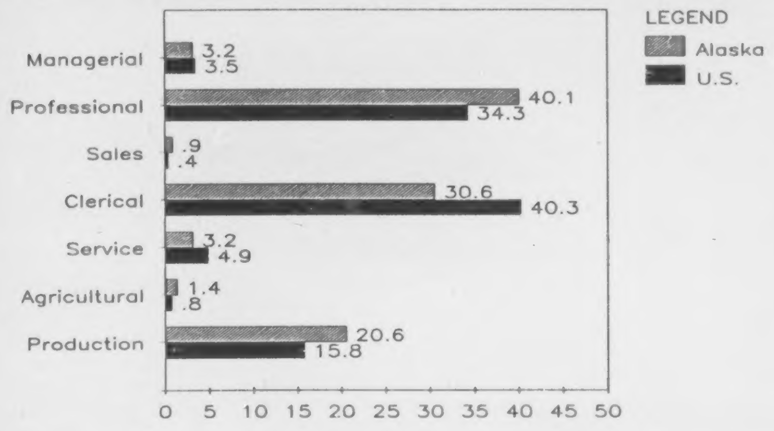


**Table 3**
**Annual Average Federal Civilian Employment in Alaska by Census Area**

| Area | 1985 | 1986 | Armed Forces 1986[1] | Other Agency 1986 |
|---|---|---|---|---|
| Anchorage Borough | 9,860 | 10,013 | 5,080 | 4,933 |
| Fairbanks Northstar Borough | 2,738 | 2,810 | 1,810 | 1,000 |
| Juneau Borough | 1,039 | 1,051 | 0 | 1,051 |
| Aleutian Islands | 694 | 691 | 617 | 74 |
| S.E. Fairbanks | 388 | 388 | 344 | 44 |
| Sitka Borough | 353 | 309 | 0 | 309 |
| Bethel | 349 | 291 | 0 | 291 |
| Ketchikan Gateway Borough | 282 | 269 | 0 | 269 |
| Yukon-Koyukuk | 224 | 229 | 43 | 186 |
| Kodiak Island Borough | 242 | 239 | 0 | 239 |
| Kenai Peninsula Borough | 207 | 210 | 1 | 209 |
| Skagway-Yakutat-Angoon | 110 | 114 | 0 | 114 |
| Wrangell/Petersburg | 171 | 161 | 0 | 161 |
| Northwest Arctic Borough | 130 | 120 | 0 | 120 |
| Valdez-Cordova | 80 | 81 | 0 | 122 |
| North Slope Borough | 132 | 117 | 57 | 59 |
| Prince of Wales - Outer Ketch | 111 | 114 | 0 | 114 |
| Mat-Su Borough | 99 | 101 | 0 | 101 |
| Nome | 110 | 94 | 0 | 94 |
| Dillingham | 85 | 82 | 2 | 80 |
| Bristol Bay Borough | 75 | 71 | 20 | 51 |
| Wade Hampton | 37 | 28 | 0 | 28 |
| Haines Borough | 9 | 9 | 0 | 9 |
| TOTAL | 17,524 | 17,592 | 7,974 | 9,618 |

[1] The Coast Guard as part of the Department of Transportation is included in the other agencies category. This differs from the two previous articles.

Source: Alaska Dept. of Labor, ES202 files.

**Most major departments of the executive branch of the federal government are represented in Alaska.**

## Federal Wages

The starting salaries for federal workers in Alaska is presented in Table 5. In Alaska federal workers are provided an additional 25% above the standard federal salary schedule. This cost of living allowance (COLA) is intended to adjust rates of pay for the higher cost of living in Alaska. A separate hourly wage schedule has been established for trade and craft workers covered under the Department of Defense Wage Fixing Authority. The starting wage rates range from $12.51 to $22.24 per hour.

According to the Alaska Department of Labor's *Statistical Quarterly* the average monthly wage earned by Alaska's federal workers in 1986

**Table 4**
**Selections from the Federal Job Opportunities Listing**
**Anchorage Area Office, October 13, 1987**

| Job Title | Grade | Location | Vacancies |
|---|---|---|---|
| Accountant/Auditor | GS-5/9 | Worldwide | Many |
| Air Traffic Controller | GS-7 | Nationwide | Many |
| Clerk | GS-2/3/4 | Alaska | Few |
| Clerk-Typist | GS-2/3/4 | Alaska | Few |
| Computer Specialist | GS-9/12 | Alaska | Few |
| Customs Inspector | GS-5/7 | Worldwide | Many |
| Data Transcriber | GS-2/3 | Alaska | Few |
| Diagnostic Radiologic Tec | GS-5/7 | Alaska | Some |
| Engineer, Professional | GS-5/13 | Alaska | Some |
| Medical Technologist | GS-5/7/9 | Alaska | Some |
| Nurse, Registered | GS-5 | Alaska | Few |
| Pharmacist | GS-9/12 | Nationwide | Many |
| Physician's Assistant | GS-7/11 | Nationwide | Many |
| Secretary | GS-4/5/6 | Alaska | Many |
| Telephone Operator | GS-3 | Alaska | Few |

**Table 5**
**Federal Annual Starting Salary Schedule for General Service**
**including 25% COLA for Alaska**

| Grade | Hourly | Yearly |
|---|---|---|
| GS-1 | $5.76 | $12,024 |
| GS-2 | 6.48 | 13,520 |
| GS-3 | 7.06 | 14,752 |
| GS-4 | 7.93 | 16,560 |
| GS-5 | 8.88 | 18,528 |
| GS-6 | 9.89 | 20,651 |
| GS-7 | 10.99 | 22,948 |
| GS-8 | 12.18 | 25,416 |
| GS-9 | 13.45 | 28,073 |
| GS-10 | 14.80 | 30,915 |
| GS-11 | 16.26 | 33,965 |
| GS-12 | 19.50 | 40,709 |
| GS-13 | 23.19 | 48,409 |
| GS-14 | 27.40 | 57,204 |

($2,348) was virtually the same as for the private sector ($2,345) but less than state ($2,887) or local ($2,617) government workers. However, one fifth of the federal "Wage" which is provided as COLA (cost of living allowance) is nontaxable income. This means, for example, that a federal worker who was paid $30,000 a year would receive $6,000 tax free. This could translates into a tax savings of roughly $1,600 compared to other workers earning $30,000.

## Summary

Federal employment has been a stable force in the Alaskan economy for many years. Federal workers are employed in a wide range of occupations in all areas of the state. The military is the largest civilian employer within the federal government in Alaska. Federal government employment has historically been stable with the number of workers growing in the last few years. Job opportunities will result from normal employee turnover and a slowly growing workforce. Although the average wage paid to federal workers in Alaska is less than for state and local government workers there is the very real benefit of receiving a portion of the wage free of tax. Job opportunities with the federal government are nationwide in many occupations. Persons seeking employment with the federal government should contact the U.S. Office of Personnel Management in Anchorage.

# Alaska's Employment Scene

**By Edward Eboch**

As we enter the second year of Alaska's recession, attention centers on the price of oil and the state budget forecast. Now we can also begin to worry about the impact the stock market collapse will have on the state's economy. With the federal government an important source of jobs in Alaska, will pressure to cut the federal budget deficit mean cutbacks in federal spending in Alaska? Will a recession mean less oil consumption and therefore lower prices for oil?

More than ever the price of oil will determine the direction of Alaska's economy, at least in the short run. Although the price of oil has remained above the price used by the Alaska Department of Revenue in its September revenue forecast, expectations about oil prices were for a lower price of oil even before the current concerns about the economy. Even if the price of oil remains at current levels, or increases, what can we expect for Alaska's economy next year?

For all practical purposes the higher price of oil will have little effect in turning around the downward drift of the economy until late next year or the year after. Both oil companies and the State can be expected to react cautiously to improved oil prices. Oil companies would expand slowly until they have some assurance that any higher price for oil would be permanent. The budget for the state fiscal year 1989 (July 1 1988 to June 30 1989) will not be decided until late spring 1988 and would not impact the economy until late next year.

While the current situation does not look promising, the long term future of Alaska remains bright. Metal mining, forestry, and tourism are strong and appear to be growing. As the excesses of the last few years are wrung out of the economy, the price of oil firms up over time, and other projects are put in the works the rebound may catch us all unprepared.

## Current Employment

September is the traditional month for seasonal adjustments in employment by many Alaska industries (Table 1). Local school districts and the University system begin classes, the peak salmon runs end, and the tourist season is customarily over. The result is a lower unemployment rate (Table 9), even though employment falls as temporary seasonal employees leave the state and students return to school.

**Manufacturing** employment, mostly fish processing, was down significantly as peak salmon runs ended. Employment in the fish processing industry remained flat over-the-year despite increases in bottomfish and crab catches. Over-the-year losses in fish processing employment in the Southeast (Table 6), where dry weather appeared to keep the salmon in deeper water, offset gains in employment in the Gulf Coast (Table 7) and Southwest regions. Small losses in the forest products and other manufacturing segments occurred with most of the employment loss in other manufacturing concentrated in construction related businesses.

**Table 1**
**Nonagricultural Wage and Salary Employment**
**By Place of Work**
**Alaska**

| | p/ 9/87 | r/ 8/87 | 9/86 | Changes From: 8/87 | 9/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 219,800 | 224,300 | 230,600 | -4,500 | -10,800 |
| Mining | 8,300 | 8,400 | 9,100 | -100 | -800 |
| Construction | 13,600 | 14,700 | 16,400 | -1,100 | -2,800 |
| Manufacturing | 15,200 | 19,900 | 15,100 | -4,700 | 100 |
| Food & Kindred Prod. | 8,800 | 13,400 | 8,800 | -4,600 | 0 |
| Lumber & Paper Prod. | 3,300 | 3,400 | 3,000 | -100 | 300 |
| All Other Mfg. | 3,100 | 3,100 | 3,300 | 0 | -200 |
| Trans. Comm. & Utilities | 19,000 | 19,300 | 19,500 | -300 | -500 |
| Trucking & Whseing. | 2,200 | 2,200 | 2,300 | 0 | -100 |
| Water Transportation | 1,400 | 1,500 | 1,600 | -100 | -200 |
| Air Transportation | 5,700 | 6,100 | 5,500 | -400 | 200 |
| Other Trans. Comm. & Utilities | 9,700 | 9,500 | 10,100 | 200 | -400 |
| Trade | 43,400 | 44,100 | 45,600 | -700 | -2,200 |
| Wholesale | 7,700 | 7,700 | 7,900 | 0 | -200 |
| Retail | 35,700 | 36,400 | 37,700 | -700 | -2,000 |
| Gen. Mer. & Apparel | 5,500 | 5,600 | 5,400 | -100 | 100 |
| Food Stores | 6,200 | 6,100 | 6,200 | 100 | 0 |
| Eating & Drinking Pl. | 13,200 | 13,800 | 14,400 | -600 | -1,200 |
| Other Retail Trade | 10,800 | 10,900 | 11,700 | -100 | -900 |
| Finance-Ins. & R.E. | 11,700 | 11,700 | 12,600 | 0 | -900 |
| Services & Misc. | 42,300 | 43,400 | 44,800 | -1,100 | -2,500 |
| Government | 66,300 | 62,800 | 67,500 | 3,500 | -1,200 |
| Federal | 18,800 | 18,800 | 18,400 | 0 | 400 |
| State | 19,100 | 17,700 | 20,000 | 1,400 | -900 |
| Local | 28,400 | 26,300 | 29,100 | 2,100 | -700 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.

r/ Denotes Revised Estimates.

**While the current situation does not look promising, the long term future of Alaska remains bright.**

### Table 2
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Anchorage

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 9/87 | r/ 8/87 | 9/86 | 8/87 | 9/86 |
| Nonag. Wage & Salary | 104,450 | 105,800 | 111,150 | -1,350 | -6,700 |
| Mining | 3,350 | 3,350 | 3,400 | 0 | -50 |
| Construction | 7,300 | 7,950 | 8,750 | -650 | -1,450 |
| Manufacturing | 2,900 | 3,400 | 3,000 | -500 | -100 |
| Food & Kindred Prod. | 1,100 | 1,550 | 1,100 | -450 | 0 |
| Other Mfg. | 1,800 | 1,850 | 1,900 | -50 | -100 |
| Trans. Comm. & Utilities | 9,300 | 9,550 | 9,900 | -250 | -600 |
| Trucking & Whseing. | 1,450 | 1,500 | 1,500 | -50 | -50 |
| Water Transportation | 250 | 300 | 350 | -50 | -100 |
| Air Transportation | 2,950 | 3,100 | 3,050 | -150 | -100 |
| Other Trans. Comm. & Utilities | 4,650 | 4,650 | 5,000 | 0 | -350 |
| Trade | 24,550 | 24,950 | 26,250 | -400 | -1,700 |
| Wholesale | 5,450 | 5,550 | 6,000 | -100 | -550 |
| Retail | 19,100 | 19,400 | 20,250 | -300 | -1,150 |
| Gen. Merchandise | 1,900 | 1,850 | 1,900 | 50 | 0 |
| Food Stores | 3,100 | 3,050 | 3,050 | 50 | 50 |
| Eating & Drinking Pl. | 7,550 | 7,750 | 8,150 | -200 | -600 |
| Other Retail Trade | 6,550 | 6,750 | 7,150 | -200 | -600 |
| Finance-Ins. & R.E. | 7,500 | 7,550 | 8,150 | -50 | -650 |
| Services & Misc. | 23,700 | 24,100 | 25;100 | -400 | -1,400 |
| Government | 25,850 | 24,950 | 26,600 | 900 | -750 |
| Federal | 10,750 | 10,800 | 10,400 | -50 | 350 |
| State | 6,750 | 6,100 | 7,300 | 650 | -550 |
| Local | 8,350 | 8,050 | 8,900 | 300 | -550 |

### Table 3
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Anchorage-MatSu

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 9/87 | r/ 8/87 | 9/86 | 8/87 | 9/86 |
| Nonag. Wage & Salary | 110,950 | 112,300 | 118,350 | -1,350 | -7,400 |
| Mining | 3,350 | 3,350 | 3,450 | 0 | -100 |
| Construction | 7,650 | 8,350 | 9,250 | -700 | -1,600 |
| Manufacturing | 3,000 | 3,550 | 3,100 | -550 | -100 |
| Trans. Comm. & Utilities | 10,000 | 10,250 | 10,650 | -250 | -650 |
| Trade | 26,100 | 26,600 | 27,800 | -500 | -1,700 |
| Finance-Ins. & R.E. | 8,050 | 8,100 | 8,700 | -50 | -650 |
| Services & Misc. | 24,800 | 25,250 | 26,400 | -450 | -1,600 |
| Government | 28,000 | 26,850 | 29,000 | 1,150 | -1,000 |

Seasonal adjustments also hit the **construction** industry. As winter approaches, warm weather projects end and new projects are put off until the following spring. While construction employment is at its lowest September level since 1979 and only half that of 1983 and 1984, it still represents a healthy 6.2% of nonagricultural wage and salary employment, well above the national average.

According to *Alaska Construction and Oil* magazine the year-to-date (January through August) value of contracting is approximately half that of 1986. This does not bode well for the construction industry over the near term.

As the tourist season ends we usually see declines in employment in both the **trade** and **service** industries. Big employment losers in trade include eating and drinking places and general merchandising and apparel stores. Losses in hotels and recreation services were major contributors to losses in the service sector. All these sectors, however, are indicating growth over the previous year, which along with other evidence, suggests that Alaska is becoming successful in extending its tourist traffic into the September/October "shoulder" season.

One interesting aspect of the employment numbers is the over-the-year strength in **food store** employment. In light of the loss in population and loss in restaurant employment, this suggests that local residents are eating out less or substituting a trip to the local grocery stores deli or salad bar, a relatively new but rapidly expanding feature of food stores. The restaurant business can expect continued difficult times as the tourist season ends and the economy continues to decline.

Offsetting the seasonal decreases in most industries was the increase in **government** employment as local schools and the University of Alaska started the school year. An increase in employment of over 4,100 in state and local education offset a decline of 600 in local noneducational employment and a decline of 100 in state noneducational employment over-the-month.

While the **federal government** work force has remained fairly constant over time there has been a dramatic shift from nonmilitary employment to military related employment. The proposed cutbacks in military programs could curtail one of Alaska's growth industries. (See the articles in this publication.)

## Other Industries

**Mining** employment was steady over the month. Small gains in oil and gas employment were offset by equally small losses in metal mining employment. The over-the-year loss in mining employment is concentrated in the oil and gas industry, primarily in the Northern region. Metal mining employment was up significantly over the year but from such a small base it only offset a small portion of the employment losses in oil and gas.

Much of the impact of the decline in mining employment will be felt in the Interior and Anchorage/MatSu Regions. Many goods and services provided to the oil companies are provided by firms in the urban communities of Anchorage and Fairbanks. In addition, people who show up as employed in the Northern Region live in other regions of the state so the impact of lost wages are felt in these regions.

The **transportation, communication, and public utility** (TCPU) industry also suffered over-the-month losses as changes in the seasonal industries had their impact. Air transportation and local passenger transportation (other TCPU) adjusted employment downward with the end of the tourist season, although increases in school bus drivers offset some of the drop in other TCPU.

With the exception of real estate related firms, the **finance insurance, and real estate** industry is not impacted much by seasonal swings in the economy. With the real estate markets in the doldrums, real estate and management investment firms haven't found it necessary to make seasonal cuts in employment as the industry is lean and mean.

After years of robust growth, we are beginning to see some weakness in the **health service** sector. With the exception of a few tourist related services this is the last of the secondary sectors to be impacted by the downturn. Other services and trade sectors that indicate growth from last year are below the levels of employment reached in 1985 suggesting the bottom in the economic downturn may not be far off.

**Table 4**
**Nonagricultural Wage and Salary Employment**
**By Place of Work**
**Fairbanks**

| | p/ 9/87 | r/ 8/87 | 9/86 | Changes From: 8/87 | Changes From: 9/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 26,850 | 26,850 | 29,300 | 0 | -2,450 |
| Mining | 150 | 150 | 150 | 0 | 0 |
| Construction | 2,250 | 2,150 | 2,600 | 100 | -350 |
| Manufacturing | 600 | 600 | 650 | 0 | -50 |
| Trans. Comm. & Utilities | 2,750 | 2,800 | 2,850 | -50 | -100 |
| Trucking & Whseing. | 350 | 350 | 350 | 0 | 0 |
| Air Transportation | 950 | 1,000 | 1,000 | -50 | -50 |
| Other Trans. Comm. & Utilities | 1,450 | 1,450 | 1,500 | 0 | -50 |
| Trade | 5,500 | 5,650 | 6,350 | -150 | -850 |
| Wholesale | 850 | 850 | 950 | 0 | -100 |
| Retail | 4,650 | 4,800 | 5,400 | -150 | -750 |
| Gen. Mer. & Apparel | 500 | 550 | 550 | -50 | -50 |
| Food Stores | 700 | 700 | 800 | 0 | -100 |
| Other Retail Trade | 3,450 | 3,550 | 4,050 | -100 | -600 |
| Finance-Ins. & R.E. | 950 | 1,000 | 1,100 | -50 | -150 |
| Services & Misc. | 5,550 | 5,850 | 6,150 | -300 | -600 |
| Government | 9,100 | 8,650 | 9,450 | 450 | -350 |
| Federal | 2,950 | 3,050 | 2,950 | -100 | 0 |
| State | 3,750 | 3,250 | 3,800 | 500 | -50 |
| Local | 2,400 | 2,350 | 2,700 | 50 | -300 |

**Table 5**
**Nonagricultural Wage and Salary Employment**
**By Place of Work**
**Interior**

| | p/ 9/87 | r/ 8/87 | 9/86 | Changes From: 8/87 | Changes From: 9/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 31,300 | 31,100 | 33,750 | 200 | -2,450 |
| Mining | 300 | 300 | 300 | 0 | 0 |
| Construction | 2,450 | 2,400 | 2,600 | 50 | -150 |
| Manufacturing | 600 | 600 | 700 | 0 | -100 |
| Trans. Comm. & Utilities | 3,150 | 3,200 | 3,250 | -50 | -100 |
| Trade | 5,900 | 6,100 | 6,750 | -200 | -850 |
| Finance-Ins. & R.E. | 1,000 | 1,050 | 1,150 | -50 | -150 |
| Services & Misc. | 6,250 | 6,550 | 6,800 | -300 | -550 |
| Government | 11,650 | 10,900 | 12,200 | 750 | -550 |

### Alaska State Chamber of Commerce

Attending the annual meeting of the Alaska State Chamber of Commerce was a reminder that current statistics do not always paint a good picture of Alaska's economy and do not always give readers the best advice on where the economy is heading in the longer term. Most plans for new or expanded businesses usually take several months to several years to develop. Looking at just current statistics won't provide the information that may be important in business planning decisions. Those that failed to attend missed an opportunity to gain in-

### Table 6
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Southeast Alaska

|  |  |  |  | Changes From: |  |
|---|---|---|---|---|---|
|  | p/ 9/87 | r/ 8/87 | 9/86 | 8/87 | 9/86 |
| Nonag. Wage & Salary | 30,300 | 30,900 | 31,400 | -600 | -1,100 |
| Construction | 1,150 | 1,200 | 1,450 | -50 | -300 |
| Manufacturing | 4,850 | 5,450 | 4,950 | -600 | -100 |
| Food & Kindred Prod. | 1,550 | 2,100 | 2,000 | -550 | -450 |
| Lumber & Paper Prod. | 3,100 | 3,150 | 2,750 | -50 | 350 |
| All Other Mfg. | 200 | 200 | 200 | 0 | 0 |
| Trans. Comm. & Utilities | 2,400 | 2,550 | 2,400 | -150 | 0 |
| Trade | 4,750 | 4,900 | 4,750 | -150 | 0 |
| Wholesale | 350 | 400 | 350 | -50 | 0 |
| Retail | 4,400 | 4,500 | 4,400 | -100 | 0 |
| Finance-Ins. & R.E. | 1,200 | 1,200 | 1,200 | 0 | 0 |
| Mining, Services & Misc. | 4,500 | 4,550 | 4,650 | -50 | -150 |
| Government | 11,450 | 11,050 | 12,000 | 400 | -550 |
| Federal | 2,200 | 2,200 | 2,200 | 0 | 0 |
| State | 5,000 | 4,950 | 5,350 | 50 | -350 |
| Local | 4,250 | 3,900 | 4,450 | 350 | -200 |

### Table 7
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Gulf Coast

|  |  |  |  | Changes From: |  |
|---|---|---|---|---|---|
|  | p/ 9/87 | r/ 8/87 | 9/86 | 8/87 | 9/86 |
| Nonag. Wage & Salary | 20,100 | 22,750 | 21,100 | -2,650 | -1,000 |
| Mining | 800 | 800 | 900 | 0 | -100 |
| Construction | 1,100 | 1,200 | 1,500 | -100 | -400 |
| Manufacturing | 4,250 | 6,650 | 4,000 | -2,400 | 250 |
| Food & Kindred Prod. | 3,650 | 6,050 | 3,400 | -2,400 | 250 |
| All Other Mfg. | 600 | 600 | 600 | 0 | 0 |
| Trans. Comm. & Utilities | 1,300 | 1,300 | 1,400 | 0 | -100 |
| Trade | 3,600 | 3,750 | 3,750 | -150 | -150 |
| Wholesale | 600 | 600 | 650 | 0 | -50 |
| Retail | 3,000 | 3,150 | 3100 | -150 | -100 |
| Finance-Ins. & R.E. | 600 | 650 | 700 | -50 | -100 |
| Services & Misc. | 3,200 | 3,500 | 3,400 | -300 | -200 |
| Government | 5,250 | 4,900 | 5,450 | 350 | -200 |
| Federal | 600 | 600 | 650 | 0 | -50 |
| State | 1,600 | 1,450 | 1,650 | 150 | -50 |
| Local | 3,050 | 2,850 | 3,150 | 200 | -100 |

sights that could be useful in their future business plans.

While there was optimism about many areas of the economy, two areas of development appear especially promising for future growth—metal mining and tourism. With improved metal prices, mining companies, in many cases in concert with Native corporations, are actively exploring and reviewing for potential development a number of mineral prospects. The Native corporations participation in these mining prospects, including oil and gas, have important long term benefits to the state.

The regional corporations have the mineral rights to both regional and village corporation lands. The profits from the development of minerals are shared by all the Native corporations. Revenues to the village native corporations are likely to be given to the share holders as dividends or invested locally. Profits from the Red Dog mine and from the Endicott oil field will filter through to Alaska Natives in the form of dividends and jobs. The net effect should be stronger local economies and a stronger more diverse state economy.

Besides the general strength of the tourist industry there are several projects under way to enhance Alaska as a winter tourist destination. Combined efforts from the tourist industry, Alaska's Tourism Division, and the Yukon are beginning to pay dividends to the industry. With Anchorage selected as the United States city to bid on the 1994 Winter Olympics Games, recognition of Alaska (and the Yukon) as a potential winter destination has been increasing to the extent that Austrian and Japanese investors are interested in developing both winter and summer resort areas.

The general theme of the meeting was positive, suggesting that Alaska's business leaders are confident that Alaska will soon recover from the current economic difficulties and experience long term growth. Plan now for next years meeting in Sitka.

September's employment approached 1982 level for the first time since the downturn began in late 1985. A look at the graph of Alaska employment by month from 1982 to the present suggests that the rest of 1987's employment will be near 1982 levels. While the graph of 1986 and 1987 employment appear flatter than earlier years the seasonal nature of employment has not changed. The growth of the economy along with the seasonal growth in the early 1980s had employment increasing faster from the beginning of each year and declining less later in the year. Now the decline in the economy is having the opposite effect, employment is growing slower than the normal seasonal growth and the decline exaggerates the fall and winter decline. Perhaps the first sign of a rebound will be a shift back to an employment curve similar to that of the early 1980s.

Figure 1

AlaskaEmployment 1982 – September 1987

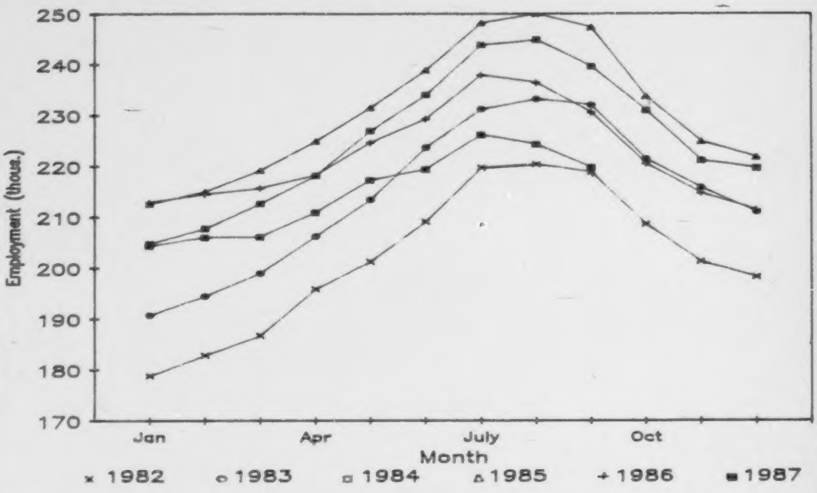


Table 8
Alaska Hours and Earnings for Selected Industries 1/2

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 9/87 | R/ 8/87 | P/ 9/86 | R/ 9/87 | P/ 8/87 | R/ 9/86 | 9/87 | 8/87 | 9/86 |
| Mining | 1,090.77 | 1,064.53 | 1,170.43 | 48.2 | 48.3 | 50.8 | 22.63 | 22.04 | 23.04 |
| Construction | 957.31 | 1,115.27 | 1,183.43 | 38.4 | 44.7 | 46.3 | 24.93 | 24.95 | 25.56 |
| Manufacturing | 502.83 | 504.99 | 422.80 | 39.1 | 45.7 | 35.0 | 12.86 | 11.05 | 12.08 |
| Food & Kindred Prod | 356.72 | 418.43 | 253.18 | 36.7 | 46.7 | 28.1 | 9.72 | 8.96 | 9.01 |
| Lumber & Paper Prod | 698.61 | 715.89 | 737.80 | 43.8 | 44.3 | 52.7 | 15.95 | 16.16 | 14.00 |
| Trans., Comm. & Util. | 540.51 | 548.30 | 557.02 | 36.3 | 36.7 | 36.1 | 14.89 | 14.94 | 15.43 |
| Trade | 366.99 | 363.12 | 384.10 | 33.7 | 34.0 | 33.4 | 10.89 | 10.68 | 11.50 |
| Wholesale | 518.02 | 519.56 | 527.06 | 38.4 | 38.6 | 36.5 | 13.49 | 13.46 | 14.44 |
| Retail | 315.54 | 310.38 | 334.95 | 32.1 | 32.5 | 32.3 | 9.83 | 9.55 | 10.37 |
| Finance-Ins. & R.E | 385.73 | 389.76 | 382.80 | 32.8 | 33.6 | 33.2 | 11.76 | 11.60 | 11.53 |

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1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor
2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

**Correction:** The following two tables published in the September *Alaska Economic Trends* (Table 8 and Table 9, page 17) have been corrected for the 1985 and 1986 years.

### Average Monthly Wage by industry (in 1986 dollars)

| Industry | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | Percent Change 80–86 | Ratio to State Average 1986 |
|---|---|---|---|---|---|---|---|---|---|
| Mining | $4,797 | $4,754 | $4,705 | $4,945 | $4,908 | $5,015 | $5,311 | 0.11 | 2.24 |
| Construction | 4,211 | 4,377 | 4,387 | 4,193 | 3,813 | 3,491 | 3,383 | -0.20 | 1.43 |
| Manufacturing | 2,326 | 2,128 | 2,176 | 2,251 | 2,212 | 2,058 | 2,000 | -0.14 | 0.84 |
| TPCU | 3,099 | 3,193 | 3,224 | 3,176 | 3,071 | 2,951 | 2,799 | -0.10 | 1.18 |
| Wholesale Trade | 2,718 | 2,669 | 2,714 | 2,757 | 2,676 | 2,651 | 2,558 | -0.06 | 1.08 |
| Retail Trade | 1,459 | 1,457 | 1,440 | 1,492 | 1,458 | 1,402 | 1,316 | -0.10 | 0.56 |
| Finance)Ins. & R.E. | 1,973 | 1,969 | 2,113 | 2,188 | 2,203 | 2,215 | 2,252 | 0.14 | 0.95 |
| Services & Misc. | 1,809 | 1,905 | 2,028 | 2,032 | 1,955 | 1,836 | 1,760 | -0.03 | 0.74 |
| Federal Government | 2,195 | 2,278 | 2,233 | 2,361 | 2,368 | 2,342 | 2,348 | 0.07 | 0.99 |
| State Government | 2,880 | 2,826 | 2,833 | 2,912 | 2,813 | 2,883 | 2,889 | -0.00 | 1.22 |
| Local Government | 2,400 | 2,485 | 2,607 | 2,669 | 2,677 | 2,588 | 2,749 | 0.15 | 1.16 |
| State Average | 2,451 | 2,516 | 2,560 | 2,600 | 2,506 | 2,414 | 2,370 | -0.03 | 1.00 |
| Anchorage CPI | 228.20 | 246.50 | 260.10 | 264.80 | 275.60 | 282.30 | 287.70 | 0.26 | |

Note: Adjusted to 1986 dollars with the annual Anchorage CPI-U

Source: Alaska Department of Labor, ES-202 files.

### Alaska Average Monthly Wage by Census Area (in 1986 dollars)

| Census Area | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | Percent Change 80–86 | Ratio to State Average 1986 |
|---|---|---|---|---|---|---|---|---|---|
| Aleutian Islands | $1,974 | $1,873 | $1,906 | $1,861 | $1,881 | $1,911 | $1,935 | -0.02 | 0.82 |
| Anchorage Borough | 2,421 | 2,435 | 2,457 | 2,496 | 2,438 | 2,391 | 2,396 | -0.01 | 1.01 |
| Bethel Census Area | 1,528 | 1,738 | 1,839 | 1,917 | 1,918 | 1,790 | 1,891 | 0.24 | 0.80 |
| Bristol Bay Borough | 2,205 | 2,439 | 2,265 | 2,136 | 2,279 | 1,896 | 2,049 | -0.07 | 0.86 |
| Dillingham Census Area | 2,089 | 2,080 | 2,065 | 2,364 | 1,978 | 1,894 | 1,905 | -0.09 | 0.80 |
| Fairbanks Northstar Borough | 2,593 | 2,586 | 2,651 | 2,683 | 2,521 | 2,479 | 2,360 | -0.09 | 1.00 |
| Haines Borough | 1,625 | 1,849 | 1,964 | 2,120 | 2,174 | 2,129 | 2,427 | 0.49 | 1.02 |
| Juneau Borough | 2,353 | 2,442 | 2,433 | 2,488 | 2,374 | 2,339 | 2,332 | -0.01 | 0.98 |
| Kenai Peninsula Borough | 2,579 | 2,577 | 2,578 | 2,527 | 2,463 | 2,388 | 2,280 | -0.12 | 0.96 |
| Ketchikan Gateway Borough | 2,373 | 2,244 | 2,312 | 2,346 | 2,235 | 2,139 | 2,144 | -0.10 | 0.90 |
| Kodiak Island Borough | 1,943 | 1,905 | 2,088 | 2,185 | 1,954 | 2,006 | 1,628 | -0.16 | 0.69 |
| Matanuska-Susitna Borough | 2,023 | 2,085 | 2,175 | 2,118 | 2,167 | 2,008 | 2,023 | -0.00 | 0.85 |
| Nome Census Area | 1,900 | 1,960 | 2,147 | 2,144 | 2,121 | 1,988 | 2,055 | 0.08 | 0.87 |
| North Slope Borough | 4,825 | 5,207 | 5,309 | 5,294 | 5,162 | 4,771 | 4,390 | -0.09 | 1.85 |
| Northwest Arctic Borough | 2,034 | 2,044 | 1,948 | 2,207 | 2,179 | 2,006 | 1,994 | -0.02 | 0.84 |
| Prince of Wales-Outer Ketch. | 2,402 | 2,199 | 2,203 | 2,351 | 2,239 | 1,974 | 2,099 | -0.13 | 0.89 |
| Sitka Census Area | 2,337 | 2,433 | 2,438 | 2,319 | 2,221 | 2,038 | 2,043 | -0.13 | 0.86 |
| Skagway-Yakutat-Angoon | 1,770 | 1,841 | 2,032 | 2,285 | 1,841 | 1,793 | 1,867 | 0.05 | 0.79 |
| Southeast Fairbanks | 1,897 | 1,975 | 1,846 | 1,955 | 1,928 | 1,936 | 2,086 | 0.10 | 0.88 |
| Valdez-Cordova | 2,824 | 2,824 | 2,777 | 2,642 | 2,641 | 2,555 | 2,521 | -0.11 | 1.06 |
| Wade Hampton | 1,522 | 1,628 | 1,687 | 1,670 | 1,649 | 1,441 | 1,590 | 0.04 | 0.67 |
| Wrangell-Petersburg | 1,945 | 2,092 | 2,128 | 2,292 | 2,110 | 2,138 | 2,123 | 0.09 | 0.90 |
| Yukon-Koyukuk | 2,758 | 2,781 | 2,733 | 2,752 | 2,602 | 2,102 | 2,222 | -0.19 | 0.94 |
| Unknown Area | 1,375 | 1,181 | 2,692 | 3,134 | 3,490 | 2,948 | 2,689 | 0.95 | 1.13 |
| State Average | 2,451 | 2,516 | 2,560 | 2,600 | 2,506 | 2,414 | 2,370 | -0.03 | 1.00 |

## Table 9
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 9/87 | R/ 8/87 | 9/86 | P/ 9/87 | R/ 8/87 | 9/86 | P/ 9/87 | R/ 8/87 | 9/86 | P/ 9/87 | R/ 8/87 | 9/86 |
| Alaska Statewide | 256,279 | 263,122 | 263,411 | 22,029 | 23,961 | 24,244 | 8.6 | 9.1 | 9.2 | 234,250 | 239,161 | 239,167 |
| Anch.-MatSu Region | 133,856 | 135,602 | 139,314 | 10,753 | 11,633 | 11,930 | 8.0 | 8.6 | 8.6 | 123,103 | 123,969 | 127,384 |
| Anchorage Borough | 118,617 | 119,977 | 122,942 | 8,403 | 9,032 | 9,437 | 7.1 | 7.5 | 7.7 | 110,214 | 110,945 | 113,505 |
| MatSu Borough | 15,239 | 15,625 | 16,372 | 2,350 | 2,601 | 2,493 | 15.4 | 16.6 | 15.2 | 12,889 | 13,024 | 13,879 |
| Gulf Coast Region | 27,717 | 30,996 | 28,214 | 2,814 | 2,977 | 3,395 | 10.2 | 9.6 | 12.0 | 24,903 | 28,019 | 24,819 |
| Kenai Peninsula Bor | 17,097 | 19,102 | 17,393 | 2,238 | 2,384 | 2,584 | 13.1 | 12.5 | 14.9 | 14,859 | 16,718 | 14,809 |
| Kodiak Island Bor | 6,472 | 7,267 | 6,716 | 266 | 285 | 531 | 4.1 | 3.9 | 7.9 | 6,206 | 6,982 | 6,185 |
| Valdez-Cordova | 4,148 | 4,627 | 4,105 | 310 | 308 | 280 | 7.5 | 6.7 | 6.8 | 3,838 | 4,319 | 3,825 |
| Interior Region | 39,093 | 39,245 | 40,669 | 4,319 | 4,834 | 4,655 | 11.0 | 12.3 | 11.4 | 34,774 | 34,411 | 36,014 |
| Fairbanks North Star Br | 33,873 | 33,917 | 35,337 | 3,679 | 4,038 | 4,067 | 10.9 | 11.9 | 11.5 | 30,194 | 29,879 | 31,270 |
| Southeast Fairbanks | 2,284 | 2,306 | 2,335 | 257 | 300 | 235 | 11.3 | 13.0 | 10.1 | 2,027 | 2,006 | 2,100 |
| Yukon-Koyukuk | 2,936 | 3,022 | 2,997 | 383 | 496 | 353 | 13.0 | 16.4 | 11.8 | 2,553 | 2,526 | 2,644 |
| Northern Region | 8,195 | 8,346 | 8,363 | 755 | 966 | 952 | 9.2 | 11.6 | 11.4 | 7,440 | 7,380 | 7,411 |
| Nome | 3,182 | 3,233 | 3,203 | 356 | 430 | 388 | 11.2 | 13.3 | 12.1 | 2,826 | 2,803 | 2,815 |
| North Slope Borough | 2,864 | 2,889 | 2,919 | 126 | 173 | 192 | 4.4 | 6.0 | 6.6 | 2,738 | 2,716 | 2,727 |
| Northwest Arctic Bor | 2,149 | 2,224 | 2,241 | 273 | 363 | 372 | 12.7 | 16.3 | 16.6 | 1,876 | 1,861 | 1,869 |
| Southeast Region | 35,249 | 35,897 | 35,310 | 2,446 | 2,590 | 2,519 | 6.9 | 7.2 | 7.1 | 32,803 | 33,307 | 32,791 |
| Haines Borough | 951 | 983 | 973 | 65 | 83 | 87 | 6.8 | 8.4 | 8.9 | 886 | 900 | 886 |
| Juneau Borough | 15,475 | 15,841 | 15,675 | 938 | 1,080 | 1,143 | 6.1 | 6.8 | 7.3 | 14,537 | 14,761 | 14,532 |
| Ketchikan Gateway Br | 7,091 | 7,203 | 7,107 | 483 | 494 | 502 | 6.8 | 6.9 | 7.1 | 6,608 | 6,709 | 6,605 |
| Pr. of Wales-Outer Ktch | 2,548 | 2,537 | 2,486 | 309 | 264 | 248 | 12.1 | 10.4 | 10.0 | 2,239 | 2,273 | 2,238 |
| Sitka Borough | 4,179 | 4,236 | 4,124 | 271 | 268 | 218 | 6.5 | 6.3 | 5.3 | 3,908 | 3,968 | 3,906 |
| Skagway-Yakutat-Ang | 1,578 | 1,601 | 1,536 | 175 | 176 | 133 | 11.1 | 11.0 | 8.7 | 1,403 | 1,425 | 1,403 |
| Wrangell-Petersburg | 3,427 | 3,496 | 3,409 | 205 | 225 | 188 | 6.0 | 6.4 | 5.5 | 3,222 | 3,271 | 3,221 |
| Southwest Region | 12,169 | 13,036 | 11,541 | 942 | 961 | 793 | 7.7 | 7.4 | 6.9 | 11,227 | 12,075 | 10,748 |
| Aleutian Islands | 3,108 | 3,321 | 2,982 | 110 | 96 | 111 | 3.5 | 2.9 | 3.7 | 2,998 | 3,225 | 2,871 |
| Bethel | 4,946 | 5,325 | 4,627 | 490 | 533 | 362 | 9.9 | 10.0 | 7.8 | 4,456 | 4,792 | 4,265 |
| Bristol Bay Borough | 458 | 481 | 422 | 30 | 21 | 12 | 6.6 | 4.4 | 2.8 | 428 | 460 | 410 |
| Dillingham | 2,101 | 2,236 | 2,028 | 116 | 101 | 127 | 5.5 | 4.5 | 6.3 | 1,985 | 2,135 | 1,901 |
| Wade Hampton | 1,556 | 1,673 | 1,482 | 196 | 210 | 181 | 12.6 | 12.6 | 12.2 | 1,360 | 1,463 | 1,301 |

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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# ALASKA ECONOMIC TRENDS

December 1987

Matching the Work Force with the Work Place

The Alaska Employment Scene

# Alaska Economic Trends

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**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

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We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact Dr. Edward W. Eboch, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.

# Matching the Work Force with the Work Place

**By Terry Elder**

When one walks through a business district, and looks at all of the various types of businesses staffed by people of different backgrounds and skills, one cannot help but wonder how the people were matched with the jobs. This is a concern to everyone. It is a concern to labor market analysts and organizations directly involved in matching workers and jobs. It is a concern to individuals, especially those who are unemployed or are underemployed and need a job. It is a concern to all who seek to promote local hire, since local hire is impossible in the absence of a local work force. Finally, it is a concern to every employer because the availability of a skilled work force has immediate impacts on the firm's costs, on productivity, and on profits.

These concerns are magnified when the company is starting a business which is new to an area, and/or entering an area which lacks a well-developed business sector and labor market. In such a case, the company may have to take an active part in preparing the work force for wage labor in general, and for work in its industry in particular.

Two current examples of such activities on the part of companies to develop a local labor force are the mining developments at Greens Creek near Juneau and at Red Dog near Kotzebue. This article will describe briefly how the two companies are approaching the problem. Following a short introduction about the mining developments, a section on each mine will outline their training programs. A concluding section will highlight the similarities and the differences in the companies' approaches.

**Two examples of companies developing a local labor force are the mining developments at Greens Creek and Red Dog.**

The role of Alaska in mineral production is changing. The historical image of the state as a source of gold is being replaced by an image of a state which produces a wide range of minerals for world consumption, including zinc, lead, coal, gold, silver, as well as other minerals. Among the developments central to the improved image are the mining developments at Red Dog and at Greens Creek. After these mines are in production Alaska will rank first in zinc production, second in silver and lead production, and third in the production of gold among the states.

The Red Dog deposit, being developed by Cominco Alaska, contains an estimated eighty-five million tons of ore. The ore is 17.1% zinc, 5.0% lead, and contains 2.4 ounces/ton of silver, as well as other minerals. It is the largest known reserve of undeveloped zinc in the world. The richness of the ore deposit in terms of percentage mineralization, and the relatively small amount of ground covering the deposit, called overburden, combine to make this a world-class deposit and a low-cost producer for years to come. The deposit is owned by the NANA Regional Corporation, and is located about fifty-two miles from the Chukchi Sea, about ninety miles northeast of Kotzebue.

In order to promote the early development of the mine and other mineral deposits in the area, and to generate needed employment in the region, the state is building a port and a road from the port to the mine at an estimated cost of $150 million. The developer and owner of this transportation system, called the DeLong Mountains Transportation System, is the Alaska Industrial Development and Export Authority. Cominco has signed a contract, backed by a letter of credit, to pay a user fee, in addition to costs of operation and maintenance, for the use of the system. The fee is calculated to repay the state, at least its initial investment plus a return of 6.5%, over a fifty-year period.

The benefits to the state are that the system will open the region for future development. About 300-400 jobs will be created in an area which lacks a broad business sector, and, in addition to the fee income, the state should benefit from future tax receipts and from lower transfer payments in the area.

A benefit to Cominco is that, by removing the costs of the transportation system from its capital requirements and making them operating costs, its capital investment for development is reduced from about $420 million to $270 million and its rate of return on capital is increased. This allows the development to proceed earlier than would otherwise be the case.

**The benefits to the state are that the system will open the region for future development.**

Current plans call for production to begin in 1990, at a rate close to the mine's and mill's 700,000 tons/year capacity. Of the roughly 400 jobs created, about 200 will be at the mine site at any one time. During their shifts the workers will live in quarters near the site, but will return to their villages at other times in order to minimize the impact of the development on the life style of the region.

The mineral deposit at Greens Creek, on Admiralty Island about eighteen miles southwest of Juneau, is being developed by the Greens Creek Mining Company, which is jointly owned by Amselco (79%), a subsidiary of BP North America, Inc., by CSX Oil and Gas Corp. (12.3%), and by Exalas Resources (8.7%). Development costs are expected to be about $80 million, and production should begin in late 1988. The mine will produce about 1,000 tons/day, and should create about 225-265 jobs. Workers will live in Juneau and will commute to work via vessels being constructed for the company in Sitka.

Currently, the deposit is estimated to contain about four million tons of ore. It is 10.8% zinc, 4.2% lead, and contains 0.16 ounces of gold and 25.3 ounces of silver per ton of ore. This will make Greens Creek the largest silver producer in the United States. Like Red Dog, the ore concentrates from Greens Creek are expected to be shipped all over the world, and especially to Asia and to the lower forty-eight states. Also similar to Red Dog, the development is occurring in an area which lacks a labor force which possesses direct mining experience.

### Greens Creek Mining Company

Greens Creek Mining Company is working with the Employment Security Division (ESD) of the Alaska Department of Labor and with the Office of Continuing Education of the University of Alaska Southeast to develop a pool of labor from which it can draw people to work in the Greens Creek mine and mill. It appears to be a good division of labor with the university providing training, with ESD recruiting people to be trained, and Amselco hiring trained people to work in the mine and mill.

The general prerequisites for enrollment in the training are minimal. The company requires the person to be at least eighteen years of age, and to be able to speak, to read, and to write English. Some jobs require a valid Alaska driver's license. A person who can fill out an application properly most likely satisfies the minimum requirements of a facility in English.

The Employment Security Division recruited applicants for the training and registered them for the course. The ESD placed advertisements in newspapers, and placed posters in Juneau to announce the dates for course registration. In addition, the division sent letters to individuals who had applied directly to Amselco to inform them of the program. The advertising must have been effective, for by 9:30 a.m. on October 5, the first day of registration, the division had already filled over a hundred of the 250 available training slots. Soon, the division had filled the class and was establishing a waiting list of applicants.

The training program has not been refined fully at this time, and instructors have not been hired yet. However a general outline of the program has been developed, and the objective is clear. The objective is to prepare a pool of workers for entry-level jobs in a mine and mill environment. Table 1 gives a short description of the jobs for which workers will be prepared.

While mine experience and/or experience related to one of the desired occupations, such as electrical work is preferred it generally is not required. The company does not expect to find many people in the area who have mining experience generally, and underground experience in particular. Therefore, it is the objective of the program to prepare people for mining work. The company expects that further training will be required after the person is hired. That training will be more task specific and will involve more hands-on work than will the program being developed by the university.

The course is scheduled to begin in early January, and to last until April 15, 1988. The dates were set to accommodate the company's mine development plan which calls for production operations in the fall of 1988. Around April 15 it is expected that Greens Creek Mining Company will interview the people who successfully complete the training program. The company will make its hiring decision, and will decide specifically in which job to place each individual. That will allow time for the on-the-job training to be completed after hiring so that the workers are ready to meet the production schedule.

This is a general training program that the company plans to require most of its work force to complete. Indeed, the university indicates that it expects a long-term relationship to develop with Greens Creek. That implies that the program may evolve over time as the program in the future will not have to adapt itself to the unique requirements of the mine's start-up phase, but can concentrate on the long-term needs of the company and on the education and training demands of the workers.

**Table 1**
**Greens Creek Mining Company**
**Entry-Level Job Descriptions**

| Job Title | Purpose | Working Conditions |
|---|---|---|
| Maintenance Technician I | Installs, repairs, and maintains equipment in safe, efficient manner. | Work underground, rotating shifts and overtime as required. Work may involve inclement conditions, and may be physical and monotonous. |
| Operator Technician I | Operates equipment safely and efficiently. | Work underground, rotating shifts and overtime as required. Work may involve inclement conditions, and may be physical and repetitive, and may include emergency conditions. |
| Electrical Technician I | Performs electrical repair and preventive maintenance. | Work underground, rotating shifts and overtime as required. Work may involve inclement conditions, and may be physical and repetitive, and may include emergency conditions. |
| Mine Technician I | General labor in mining department. | Work underground, rotating shifts and overtime as required. Area may be cold, hot, wet, or dusty. Work may be strenuous and/or monotonous. |
| Mill Technician I | General labor in milling department. | Not available. |

However, the first course offering likely will be influenced by the short-term requirements of the mining project. While the course has yet to be developed in detail, a review of an August 24, 1987, outline for a course entitled "Underground Metal Miner," offered by the Mining and Petroleum Training Service of the University of Alaska Anchorage, may give some insight into the program in Juneau. Following is a list of the main topics covered in the course outline:

1. History and background of underground metals mining.
2. Health, safety, and hazard training for the newly employed, inexperience miner.
3. Mining and mineral economics.
4. Underground mining cycle (drilling, advance roof, etc.).
5. Mining tasks.
6. Mechanized equipment and operation.
7. Milling tasks.
8. Mine rescue.

As mentioned earlier, most of the course will be designed as classroom instruction which will prepare workers for on-the-job training after they are hired. It may develop into something more, including a type of apprenticeship program, or an Associate of Arts degree program. However it may evolve, it appears to be a successful partnership which ultimately will benefit the company, the university, and the workers.

The university will benefit from a broadening of its client base. The company will benefit from the availability of a prepared work force and a program it can use as a preemployment screening device. The

**The contract between NANA and Cominco establishes a long-term goal of 100% local area hire within twelve years of the beginning of production.**

workers will benefit from a program which will provide them the training they need to work in an environment for which they have no previous experience. They will benefit also from the relationship that the university has with the employer which should improve the likelihood that the individual's investment in training will lead to employment.

### Cominco Alaska (Red Dog)

Cominco is the developer of the Red Dog mine. but the NANA Regional Corporation owns the mineral deposit. As a result of the diverse objectives of the Native corporation and its position as owner of the mineral deposit, NANA was able to contract with a developer such as Cominco, which is sensitive to the local hire wishes of people in the area. Because of the long lead time required to develop a mine, the parties have had ample time to prepare a program which would prepare a work force to work in a mine environment. This is especially challenging to do in an area in which hard rock mining is new, and in which the predominant life style is subsistence.

The contract between NANA and Cominco establishes a long-term goal of 100% local area hire within twelve years of the beginning of production. In order to meet that goal, Cominco has worked closely with NANA Regional Corporation and with Maniilaq Manpower Inc. to select and train workers according to a schedule which will meet the production plans of the mine development.

With the mine road and port currently under construction by an agency of the state (the Alaska Industrial Development and Export Authority), the company indicates that it plans to begin production in 1990. In addition, Cominco currently is planning on producing at a rate which is close to full design capacity soon after production begins. The company expects to employ about 300-350 people who will work in shifts. Employment at the mine site should be about 200 at any one time. They expect that this schedule will require the training of about 100-150 people from the area between now and the 1990 opening of the mine.

Working with NANA and Maniilaq Manpower, about a hundred people were selected for possible training. The Kotzebue office of the Employment Security Division of the Alaska Department of Labor administered the General Aptitude Test Battery to 65-70 people. Maniilaq Manpower recruited the people and arranged for testing dates and sites throughout the area. The Employment Security Division traveled to the sites, administered the tests and scored them in five job families (clerical, construction, and equipment operators, for example). There will be further testing of candidates in the future. It should be noted that the test is only one of several factors that the company uses in its hiring decision.

From this pool, NANA and Cominco jointly selected the first ten people to receive training. Actually, thirty people were chosen in order to provide two alternates for each person initially picked for training. Selection for training amounts to hiring since a person who satisfactorily completes the training is guaranteed employment. A strong link between training and employment should provide the company with the correct number of people trained in the correct skills, and should prevent large numbers of people getting trained without being able to find jobs when the training is completed.

The first ten trainees are receiving instruction in heavy equipment operation, diesel mechanics, and welding at the Alaska Vocational Technical Center (AVTEC) in Seward. The initial training lasts for 21-28 weeks. A typical training program might include instruction at AVTEC, followed by a period of on-the-job training on the site in the Kotzebue area, and possibly followed by another period of training at AVTEC. The typical training day includes six hours of hands-on experience, and two hours of classroom instruction. In addition to the vocational educational aspect of the program, it is possible for a trainee to upgrade generally the basic skills of math and reading, particularly as these skills relate to the job for which the person is being trained. A trainee may also complete the high school equivalency program (GED).

All of the parties at this time plan to continue to use the program for future staffing needs of the mine. The next ten people will begin a training program soon. The program will cover the electrical skill required at the mine. AVTEC is in the process of developing an electrical skills program that would be suitable. Funding for the training costs come from several sources, including Cominco, Job Training Partnership Act funds, and Department of Labor training funds.

All parties benefit from the arrangement. NANA is able to maximize the percentage of the work force that comes from its region. Training facilities in Alaska such as AVTEC can expand their base of clients. Cominco is able to select individuals for employment, and can ensure that they are trained in the correct skills that will satisfy the requirements of the mine development schedule. The trainees benefit from knowing that the training in which they invest about six months of their lives will lead to related employment upon the satisfactory completion of the program.

## Conclusion

It is interesting to consider how a company in a new industry attracts workers in an area that lacks a large labor pool with the required specialized skills. The Greens Creek and Cominco mining projects face similar problems.

Their approaches are similar in that both companies work closely with local organizations and with training facilities to ensure that an appropriate number of people are prepared for mining jobs. Both companies are sensitive to local hire issues. They have planed for future staffing needs and recognize that their special situations require a more active role in the preparation of the work force than might be usual for many new businesses.

The training programs are quite different, however. The training for Red Dog employment, at least at this time, is considerably longer and includes a large emphasis on hands-on activities, compared to the classroom approach of Greens Creek which is followed by on-the-job training after hire. The other major difference is that hiring takes place before the training for Red Dog (although it is based on successful completion of the training program) whereas there is no pre-training employment guarantee by Greens Creek. However, the long-term approach of Greens Creek to use the program as a pre-employment requirement still provides a strong link between the training and a job.

The lesson is that public, private, and nonprofit organizations, which are interested in matching people and jobs, can work together to their mutual benefit. In securing a work force, these organizations do not have to take a passive role such as opening up the personnel office and seeing if anyone applies. In locations lacking an experienced labor force, organizations must actively develop a qualified pool of workers from which to draw.

**The lesson is that public, private, and nonprofit organizations, which are interested in matching people and jobs, can work together to their mutual benefit.**

In this effort the Division of Employment Security has taken an active role. Far from simply taking job orders and placing people who walk in the door, the division's work with Greens Creek and Red Dog demonstrates a desire and a capability to assist employers with their testing, recruiting, and training needs.[1] With each organization doing its part, the ultimate beneficiary is the worker who receives the proper training, and is rewarded with a good job.

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[1] For more information on these capabilities, contact the Division of Employment Security, Alaska Department of Labor, P.O. Box 3-7000, Juneau, Alaska 99802, (907) 465-2712.

# The Alaska Employment Scene

**By Neal Fried**

The tourists are gone, the frenzied commercial salmon season is over, and most of the construction projects are wrapped up for the winter. Alaska's economy is not just losing jobs as a result of the recession, but seasonal losses have set in and will be with us for at least the next four months. An additional 8,000 wage and salary jobs were lost in October and the state's jobless rate climbed to 9.1% (Table 9).

Seasonal downswings are an annual event during good years and bad. Everyone expects them but they compound the woes of an already weak economy. Individuals fortunate enough to secure seasonal employment, particularly construction jobs, probably worked a shorter season this year. The ability of these seasonal workers to supplement their smaller earnings with other short-term jobs will be in doubt this winter because of the present recession.

**The industry picture has not changed during 1987.**

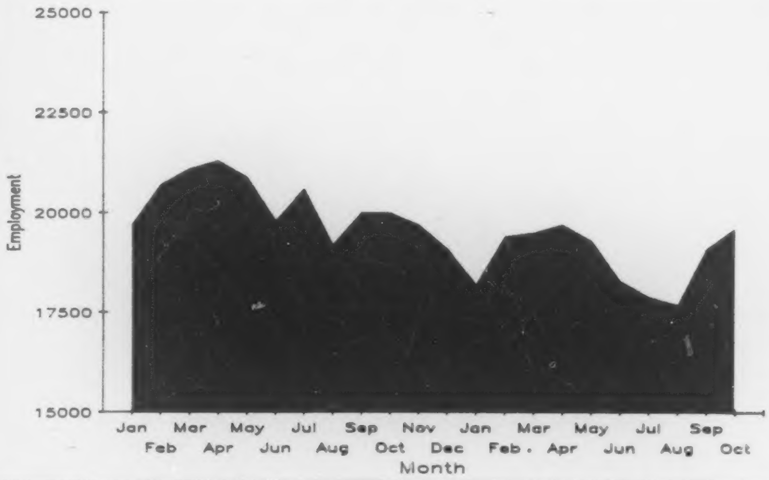
### Signs of Moderating Trends

The industry picture has not changed during 1987 as the breadth of the employment declines remain with us. All but one major industry category remains on the negative side of the ledger when year-ago comparisons are made (Table 1). On a positive note, the losses appear to be moderating as the year comes to a close which may be an indicator of better times to come.

In the **oil industry** employment losses have moderated enough that a bottoming out appears possible by early 1988. October employment in this industry was down 4.1% compared to year-ago-levels but up slightly over-the-month. Stabilized oil prices and an increase in drilling activity point to signs of recovery in 1988.

**State government** employment losses are also bottoming out (Figure 1). In October last year over-the-year losses stood at 1,200 (-6%) but the over-the-year losses have shrunk to 400 (-2%) by this October. Most of the layoffs, early retirements, and attrition took place during the latter part of 1986 and early 1987 and presently appear to be played out. This is significant when you consider that 9% of the Alaska's employment is in state government.

Figure 1
Alaska State Government Employment, 1986 and 1987



**Local government**, which employs 13% of the state's nonagricultural wage and salary work force, is not in as good shape as its state counterpart. Local governments throughout the state are continuing to look for ways to pare their 1988 budgets. This will translate into less local government employment.

### Alaska's Growth Industries

Growth industries are few and far between but they exist in the midst of our present recession. not only is there growth, it is in some of Alaska's important "basic" industries.

Bottom fishing is the premier growth industry of 1987. October's **fish processing** employment was a full 1,700 (41%) above year-ago levels and most of this growth can be attributable to the development of the bottom fish industry. In 1986 two processors in Kodiak processed bottom fish while today all 12 processors in Kodiak are handling bottomfish.

Dutch Harbor has also become a very active participant in this industry. The City of Homer is ready to become the home port to three Oceantrawl bottom fish processor ships which may employ up to 450 locally hired workers. Other processors throughout the state also have jumped into bottom fishing ventures or have plans to do so.

New life is also being breathed into the king crab fishery after its collapse in the early 1980s. This year's harvest of King Crab is the first over-the-year increase since 1980 although it only represents a fraction of the huge harvests of the 1970s. If this fishery continues to rebound and bottom fishing can sustain itself, a tremendous potential for growth in the fishing industry exists.

In contrast to the oil industry, Alaska's **hard rock mining** is reaching new highs in employment for the 1980s. Prices for a majority of the important minerals in the state have been steadily increasing, giving rise to a flurry of activity. The development of Greens Creek and Red Dog are under way and a number of medium size and smaller gold mining operations have expanded or gone into operation. A number of other potentially large mining operations are in the planning stages. There is a good chance that 1987 will be remembered as the beginning of a major hard rock mining boom in Alaska.

The **timber industry** has also moved ahead in the midst of the present recession. It's recovery began in 1985 and has continued to the present, however, the specter of a national recession could bring growth to a halt.

## The Remainder of the Economy

**Construction's** losses have moderated, but commercial and residential construction activity is almost nonexistent. A comparison of the first ten months of this year to the corresponding months in 1986 indicates this industry has lost an additional 1,570 jobs (12%) this year. Altogether, construction has lost 8,860 jobs or 43% of its employment since its peak October in 1984. To find an equivalent level of construction employment, one has to reach back to 1979, also a recessionary year for that industry because of the completion of the oil pipeline and related activity. Total employment, on the other hand, has only declined to 1982-1983 levels.

Alaska's **secondary industries** are presently suffering the greatest losses in employment. Declining incomes and wages automatically translated into additional declines in the secondary industries. These industries were among the fastest growing industries during the oil revenue boom era as they became caught up in the speculative fever of the time. When much of the support for their growth disappeared, losses in these industries were inevitable.

**Table 1**
**Nonagricultural Wage and Salary Employment**
**By Place of Work**
**Alaska**

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/<br>10/87 | r/<br>9/87 | 10/86 | 9/87 | 10/86 |
| Nonag. Wage & Salary | 212,000 | 220,000 | 220,500 | -8,000 | -8,500 |
| Mining | 8,300 | 8,400 | 8,500 | -100 | -200 |
| Construction | 12,600 | 13,700 | 15,300 | -1,100 | -2,700 |
| Manufacturing | 12,100 | 15,200 | 10,300 | -3,100 | 1,800 |
| Food & Kindred Prod. | 5,700 | 8,900 | 4,100 | -3,200 | 1,600 |
| Lumber & Paper Prod. | 3,300 | 3,300 | 2,900 | 0 | 400 |
| All Other Mfg. | 3,100 | 3,000 | 3,300 | 100 | -200 |
| Trans. Comm. & Utilities | 17,800 | 18,900 | 18,200 | -1,100 | -400 |
| Trucking & Whseing. | 2,100 | 2,200 | 2,200 | -100 | -100 |
| Water Transportation | 1,100 | 1,200 | 1,300 | -100 | -200 |
| Air Transportation | 5,500 | 5,800 | 5,300 | -300 | 200 |
| Other Trans. Comm. & Utilities | 9,100 | 9,700 | 9,400 | -600 | -300 |
| Trade | 41,600 | 43,600 | 43,900 | -2,000 | -2,300 |
| Wholesale | 7,400 | 7,600 | 7,600 | -200 | -200 |
| Retail | 34,200 | 36,000 | 36,300 | -1,800 | -2,100 |
| Gen. Mer. & Apparel | 5,400 | 5,600 | 5,500 | -200 | -100 |
| Food Stores | 6,000 | 6,200 | 6,000 | -200 | 0 |
| Eating & Drinking Pl. | 12,000 | 13,400 | 13,300 | -1,400 | -1,300 |
| Other Retail Trade | 10,800 | 10,800 | 11,500 | 0 | -700 |
| Finance-Ins. & R.E. | 11,400 | 11,500 | 12,600 | -100 | -1,200 |
| Services & Misc. | 40,900 | 42,400 | 43,300 | -1,500 | -2,400 |
| Government | 67,300 | 66,300 | 68,400 | 1,000 | -1,100 |
| Federal | 18,600 | 18,800 | 18,400 | -200 | 200 |
| State | 19,600 | 19,100 | 20,000 | 500 | -400 |
| Local | 29,100 | 28,400 | 30,000 | 700 | -900 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.

r/ Denotes Revised Estimates.

### Table 2
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Anchorage

| | p/ 10/87 | r/ 9/87 | 10/86 | Changes From: 9/87 | 10/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 102,850 | 104,800 | 108,950 | -1,950 | -6,100 |
| Mining | 3,350 | 3,350 | 3,250 | 0 | 100 |
| Construction | 6,800 | 7,350 | 8,250 | -550 | -1,450 |
| Manufacturing | 2,300 | 2,900 | 2,350 | -600 | -50 |
| Food & Kindred Prod. | 500 | 1,100 | 500 | -600 | 0 |
| Other Mfg. | 1,800 | 1,800 | 1,850 | 0 | -50 |
| Trans. Comm. & Utilities | 9,150 | 9,300 | 9,550 | -150 | -400 |
| Trucking & Whseing. | 1,400 | 1,450 | 1,400 | -50 | 0 |
| Water Transportation | 300 | 250 | 350 | 50 | -50 |
| Air Transportation | 2,950 | 2,950 | 3,050 | 0 | -100 |
| Other Trans. Comm. & Utilities | 4,500 | 4,650 | 4,750 | -150 | -250 |
| Trade | 24,550 | 24,800 | 25,900 | -250 | -1,350 |
| Wholesale | 5,450 | 5,450 | 5,850 | 0 | -400 |
| Retail | 19,100 | 19,350 | 20,050 | -250 | -950 |
| Gen. Merchandise | 2,000 | 1,950 | 1,950 | 50 | 50 |
| Food Stores | 3,100 | 3,150 | 3,000 | -50 | 100 |
| Eating & Drinking Pl. | 7,300 | 7,550 | 8,000 | -250 | -700 |
| Other Retail Trade | 6,700 | 6,700 | 7,100 | 0 | -400 |
| Finance-Ins. & R.E. | 7,250 | 7,400 | 8,250 | -150 | -1,000 |
| Services & Misc. | 23,300 | 23,700 | 24,600 | -400 | -1,300 |
| Government | 26,150 | 26,000 | 26,800 | 150 | -650 |
| Federal | 10,600 | 10,750 | 10,350 | -150 | 250 |
| State | 6,950 | 6,750 | 7,350 | 200 | -400 |
| Local | 8,600 | 8,500 | 9,100 | 100 | -500 |

### Table 3
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Anchorage-MatSu

| | p/ 10/87 | r/ 9/87 | 10/86 | Changes From: 9/87 | 10/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 109,000 | 111,250 | 115,700 | -2,250 | -6,700 |
| Mining | 3,350 | 3,400 | 3,250 | -50 | 100 |
| Construction | 7,100 | 7,700 | 8,700 | -600 | -1,600 |
| Manufacturing | 2,350 | 3,000 | 2,400 | -650 | -50 |
| Trans. Comm. & Utilities | 9,800 | 10,000 | 10,250 | -200 | -450 |
| Trade | 25,950 | 26,350 | 27,400 | -400 | -1,450 |
| Finance-Ins. & R.E. | 7,800 | 8,000 | 8,750 | -200 | -950 |
| Services & Misc. | 24,350 | 24,800 | 25,800 | -450 | -1,450 |
| Government | 28,300 | 28,000 | 29,150 | 300 | -850 |

Service's over-the-year employment losses climbed from 1% in 1986 to 5% in 1987. Trade's employment losses (wholesale and retail) grew from 3% to 6%. The losses in finance, insurance, and real estate (FIRE), also accelerated, from 1% in 1986 to 6% in 1987. Combined, these three industries have lost 5,900 jobs from 1986 levels. It is not surprising that these industries' losses were somewhat delayed since it took time for losses in the other industries to filter down—particularly to services and finance. Losses in these industries will likely continue through 1988.

## The Geographic Employment Picture

All of **Anchorage's** industries lost ground from September and total employment losses show no real signs of moderating. Over-the-year employment for the first ten months of 1987 averaged 5,990 less jobs (5.5%) from the same period in 1986. The same months for the 1985 to 1986 period the job losses totaled 4%. The losses are even broader than the state's—not a single major industry category is presently escaping losses (Table 2). The only "subcategory" that might be defined as a growth industry would be federal employment which has grown 2.4% over the year.

The FDIC closure of Bank of the North sent shudders throughout the financial community. The Bank of the North had major difficulties for a number of years so this action was not unexpected. The successful merger of the two troubled financial institutions, Alaska Mutual Bank and United Bank of the Alaska, into the Alliance Bank helped calm some concerns. Both the closure of Bank of the North and the merger have taken a toll on banking employment. By next month an estimate of the employment losses as a result of these two events will become more-clear.

On a more positive note, it was announced that ground would be broken in the spring of 1988 for a $230 million world class international resort near Eagle River including a major ski resort. They project the construction phase would create 633 jobs each year between 1988-1990 and the resort facility would employ 1,200 when it opens in 1991.

**Fairbanks'** economic picture is not much different from that in Anchorage. Unemployment in October reached 11.6% and the seasonal downswing cost 950 jobs (Table 4). Over-the-year losses continue to plague almost all of Fairbanks' major industry categories. Local government grabbed the headlines during the past month because of major revenue shortfalls. As a result, the Fairbanks North Star Borough announced 20 layoffs in October, not the 90 they had initially expected. The City of Fairbanks' losses have been considerably larger—70 jobs or 27% of its work force.

Losses in construction in Fairbanks endure although they have moderated considerably. In 1986 the construction industry experienced a 45% over-the-year decline in employment while that rate of decline has fallen to 11% currently. Construction activity related to the Army's Light Infantry Division has helped absorb some of the losses.

Four hundred additional soldiers arrived in November, bringing the grand total of new soldiers to Fort Wainwright to approximately 1,400 in 1987. By next year the influx of soldiers should begin to have measurable impacts on the economy. By next year losses in construction should be over and military related construction may manage to pull construction employment out of its downward spiral.

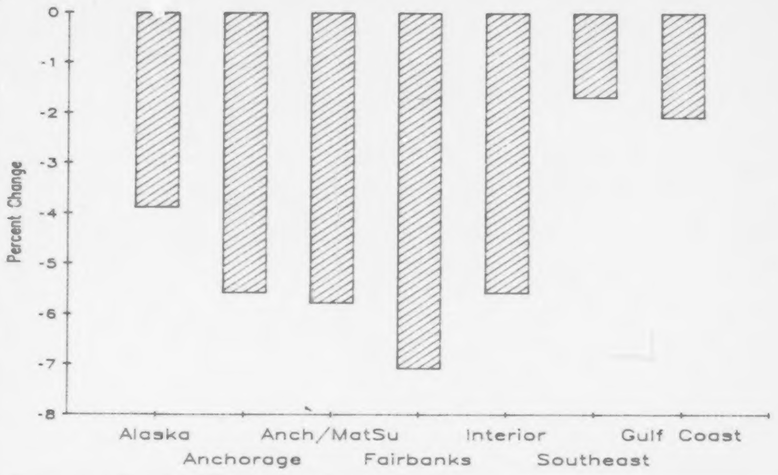
State government employment for the first time in months did not decline in Fairbanks. There were as many state jobs during October of this year as October 1986. Considering the fact that the state (including the University) accounts for 14% of Fairbanks' wage and salary employment, this stabilization is a significant development—another possible sign that the slide in employment may be over.

Most of the activity in the **Gulf Coast** region reflects what is occurring in the remainder of the state. The Kenai Peninsula's employment levels are continuing to slide in almost all industry categories. Unemployment remains high at 15.3%, the second highest rate in the state. Recently released adjusted sales tax figures revealed a 3.7% decline for the third quarter, which actually indicates some improvement from earlier quarters of this year.

Only fish processing employment figures are showing improvement (as a result of bottomfishing). Processors in Homer, Seward and Kenai have begun handling bottomfish. Kodiak is the only bright spot in the region, actually one of the few in the state, and bottom fishing has made this possible. Labor shortages in the bottom fishery are still being reported in Kodiak.

Figure 2

Percent Change in October Employment, 1986 to 1987



**Four hundred additional soldiers arrived in November, bringing the grand total of new soldiers to Fort Wainwright to approximately 1,400.**

Alaska Pacific Refining Inc. (APRI) recently announced it is forging ahead with its plans for a refinery in Valdez. If the refinery is built, it would employ 1,200 workers during the construction phase and 250 workers for operating the plant. APRI is still talking about breaking ground in the spring. If this does indeed happen, Valdez's present wage and salary work force of 1,800 would grow dramatically.

**Southeast's** economic picture is mixed. Juneau remains the major drag on the region's economy because of the economic overcapacity put in place during the oil revenue boom years. However, there are signs in Juneau that the worst may be over. State government employment levels are down from year-ago levels but no large additional layoffs are expected. Greens Creek mine on Admiralty Island will have largely a local workforce and this should provide an additional economic boost to the community. Other promising mine sites in the area are being considered for future development.

### Table 4
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Fairbanks

|  | p/<br>10/87 | r/<br>9/87 | 10/86 | Changes From:<br>9/87 | <br>10/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 26,000 | 26,950 | 28,000 | -950 | -2,000 |
| Mining | 100 | 150 | 100 | -50 | 0 |
| Construction | 1,950 | 2,250 | 2,250 | -300 | -300 |
| Manufacturing | 550 | 600 | 650 | -50 | -100 |
| Trans. Comm. & Utilities | 2,500 | 2,750 | 2,700 | -250 | -200 |
| Trucking & Whseing. | 350 | 350 | 400 | 0 | -50 |
| Air Transportation | 900 | 950 | 950 | -50 | -50 |
| Other Trans. Comm. & Utilities | 1,250 | 1,450 | 1,350 | -200 | -100 |
| Trade | 5,350 | 5,700 | 5,900 | -350 | -550 |
| Wholesale | 800 | 850 | 950 | -50 | -150 |
| Retail | 4,550 | 4,850 | 4,950 | -300 | -400 |
| Gen. Mer. & Apparel | 500 | 550 | 550 | -50 | -50 |
| Food Stores | 800 | 800 | 800 | 0 | 0 |
| Other Retail Trade | 3,250 | 3,500 | 3,600 | -250 | -350 |
| Finance-Ins. & R.E. | 950 | 950 | 1,050 | 0 | -100 |
| Services & Misc. | 5,250 | 5,450 | 5,700 | -200 | -450 |
| Government | 9,350 | 9,100 | 9,650 | 250 | -300 |
| Federal | 2,850 | 2,950 | 2,900 | -100 | -50 |
| State | 4,050 | 3,750 | 4,050 | 300 | 0 |
| Local | 2,450 | 2,400 | 2,700 | 50 | -250 |

### Table 5
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Interior

|  | p/<br>10/87 | r/<br>9/87 | 10/86 | Changes From:<br>9/87 | <br>10/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 30,050 | 31,250 | 32,300 | -1,200 | -2,250 |
| Mining | 250 | 300 | 250 | -50 | 0 |
| Construction | 2,050 | 2,450 | 2,350 | -400 | -300 |
| Manufacturing | 550 | 600 | 650 | -50 | -100 |
| Trans. Comm. & Utilities | 2,850 | 3,150 | 3,000 | -300 | -150 |
| Trade | 5,700 | 5,950 | 6,300 | -250 | -600 |
| Finance-Ins. & R.E. | 1,000 | 1,000 | 1,150 | 0 | -150 |
| Services & Misc. | 5,750 | 6,150 | 6,300 | -400 | -550 |
| Government | 11,900 | 11,650 | 12,300 | 250 | -400 |

Much of the remaining Southeast communities do not have the oil revenue boom overhang plaguing their economies. A healthy timber industry, so dormant in many Southeast communities until recently, has made it possible for many of the local economies to continue growing. Good tourism seasons have also contributed to healthy local economies.

A recent poor salmon harvest hurt some of the southern southeastern communities, but this is only temporary. Of all the regions in the state, Southeast Alaska is coming through the present recession the most unscathed.

## Summary

September employment suffered losses, both seasonally and over-the-year. Few industries are immune from the present recession. Some signs of a better future exists, however, as many of those industries which are

### Table 6
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Southeast Alaska

| | p/ 10/87 | r/ 9/87 | 10/86 | Changes From: 9/87 | Changes From: 10/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 28,400 | 30,100 | 28,900 | -1,700 | -500 |
| Construction | 1,050 | 1,150 | 1,350 | -100 | -300 |
| Manufacturing | 4,150 | 4,800 | 3,700 | -650 | 450 |
| Food & Kindred Prod. | 850 | 1,500 | 800 | -650 | 50 |
| Lumber & Paper Prod. | 3,100 | 3,100 | 2,700 | 0 | 400 |
| All Other Mfg. | 200 | 200 | 200 | 0 | 0 |
| Trans. Comm. & Utilities | 2,050 | 2,350 | 2,050 | -300 | 0 |
| Trade | 4,400 | 4,700 | 4,450 | -300 | -50 |
| Wholesale | 350 | 350 | 350 | 0 | 0 |
| Retail | 4,050 | 4,350 | 4,100 | -300 | -50 |
| Finance-Ins. & R.E. | 1,100 | 1,200 | 1,200 | -100 | -100 |
| Mining, Services & Misc. | 4,250 | 4,500 | 4,500 | -250 | -250 |
| Government | 11,400 | 11,400 | 11,650 | 0 | -250 |
| Federal | 2,100 | 2,200 | 2,100 | -100 | 0 |
| State | 5,050 | 5,000 | 5,200 | 50 | -150 |
| Local | 4,250 | 4,200 | 4,350 | 50 | -100 |

### Table 7
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Gulf Coast

| | p/ 10/87 | r/ 9/87 | 10/86 | Changes From: 9/87 | Changes From: 10/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 18,950 | 19,950 | 19,350 | -1,000 | -400 |
| Mining | 650 | 800 | 850 | -150 | -200 |
| Construction | 1,100 | 1,100 | 1,400 | 0 | -300 |
| Manufacturing | 3,300 | 4,050 | 2,500 | -750 | 800 |
| Food & Kindred Prod. | 2,700 | 3,450 | 1,900 | -750 | 800 |
| All Other Mfg. | 600 | 600 | 600 | 0 | 0 |
| Trans. Comm. & Utilities | 1,300 | 1,300 | 1,300 | 0 | 0 |
| Trade | 3,300 | 3,600 | 3,500 | -300 | -200 |
| Wholesale | 450 | 600 | 500 | -150 | -50 |
| Retail | 2,850 | 3,000 | 3,000 | -150 | -150 |
| Finance-Ins. & R.E. | 550 | 600 | 650 | -50 | -100 |
| Services & Misc. | 3,200 | 3,200 | 3,400 | 0 | -200 |
| Government | 5,550 | 5,300 | 5,750 | 250 | -200 |
| Federal | 600 | 600 | 600 | 0 | 0 |
| State | 1,600 | 1,600 | 1,600 | 0 | 0 |
| Local | 3,350 | 3,100 | 3,550 | 250 | -200 |

loosing employment such as mining, construction, and government are now showing a moderation in their losses.

In contrast, the timber industry continues to expand. In addition, other industries such as bottom fishing and hard rock mining have launched many new ventures this year and are creating new job opportunities. Geographically the economic picture is similar throughout the state. Most regions are enduring employment losses but the degree of declines varies. The largest declines are found in the Anchorage-Matsu and Interior regions, while Southeast is faring best. No overall growth in the economy is projected for the near term but an end to the deep economic descent of the past two years may be within sight.

## Table 8
## Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 10/87 | R/ 9/87 | 10/86 | P/ 10/87 | R/ 9/87 | 10/86 | P/ 10/87 | R/ 9/87 | 10/86 |
| Mining | 1,107.04 | 1,087.87 | 1,210.61 | 48.3 | 48.2 | 50.4 | 22.92 | 22.57 | 24.02 |
| Construction | 1,002.26 | 964.79 | 1,234.53 | 40.3 | 38.7 | 47.3 | 24.87 | 24.93 | 26.10 |
| Manufacturing | 518.40 | 495.67 | 512.47 | 40.0 | 40.2 | 41.8 | 12.96 | 12.33 | 12.26 |
| Food & Kindred Prod | 295.59 | 357.12 | 295.14 | 35.4 | 38.4 | 33.5 | 8.35 | 9.30 | 8.81 |
| Lumber & Paper Prod | 749.13 | 701.36 | 742.15 | 46.3 | 44.0 | 57.8 | 16.18 | 15.94 | 12.84 |
| Trans., Comm. & Util. | 545.01 | 547.56 | 550.37 | 36.8 | 36.7 | 36.4 | 14.81 | 14.92 | 15.12 |
| Trade | 360.65 | 365.78 | 387.89 | 33.8 | 33.9 | 33.7 | 10.67 | 10.79 | 11.51 |
| Wholesale | 515.26 | 520.52 | 535.81 | 38.8 | 38.7 | 36.8 | 13.28 | 13.45 | 14.56 |
| Retail | 308.80 | 313.63 | 339.10 | 32.1 | 32.3 | 32.7 | 9.62 | 9.71 | 10.37 |
| Finance Ins. & R.E. | 385.26 | 382.28 | 386.12 | 32.9 | 33.3 | 34.2 | 11.71 | 11.48 | 11.29 |

Benchmark March 1986

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor
[2] excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

## Table 9
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 10/87 | R/ 9/87 | 10/86 | P/ 10/87 | R/ 9/87 | 10/86 | P/ 10/87 | R/ 9/87 | 10/86 | P/ 10/87 | R/ 9/87 | 10/86 |
| Alaska Statewide | 248,310 | 253,342 | 253,653 | 22,588 | 21,870 | 25,342 | 9.1 | 8.6 | 10.0 | 225,722 | 231,472 | 228,311 |
| Anch.-MatSu Region | 131,328 | 132,698 | 135,953 | 10,787 | 10,690 | 11,929 | 8.2 | 8.1 | 8.8 | 120,541 | 122,008 | 124,024 |
| Anchorage Borough | 116,604 | 117,808 | 120,251 | 8,316 | 8,354 | 9,452 | 7.1 | 7.1 | 7.9 | 108,288 | 109,454 | 110,799 |
| MatSu Borough | 14,724 | 14,890 | 15,702 | 2,471 | 2,336 | 2,477 | 16.8 | 15.7 | 15.8 | 12,253 | 12,554 | 13,225 |
| Gulf Coast Region | 26,398 | 27,048 | 26,526 | 3,148 | 2,781 | 3,690 | 11.9 | 10.3 | 13.9 | 23,250 | 24,267 | 22,836 |
| Kenai Peninsula Bor | 16,385 | 16,692 | 16,464 | 2,513 | 2,213 | 2,839 | 15.3 | 13.3 | 17.2 | 13,872 | 14,479 | 13,625 |
| Kodiak Island Bor | 6,072 | 6,310 | 6,101 | 278 | 263 | 410 | 4.6 | 4.2 | 6.7 | 5,794 | 6,047 | 5,691 |
| Valdez-Cordova | 3,941 | 4,046 | 3,961 | 357 | 305 | 441 | 9.1 | 7.5 | 11.1 | 3,584 | 3,741 | 3,520 |
| Interior Region | 37,861 | 38,600 | 39,276 | 4,530 | 4,286 | 4,958 | 12.0 | 11.1 | 12.6 | 33,331 | 34,314 | 34,318 |
| Fairbanks North Star Br | 32,746 | 33,447 | 33,969 | 3,805 | 3,652 | 4,171 | 11.6 | 10.9 | 12.3 | 28,941 | 29,795 | 29,798 |
| Southeast Fairbanks | 2,227 | 2,254 | 2,281 | 284 | 254 | 280 | 12.8 | 11.3 | 12.3 | 1,943 | 2,000 | 2,001 |
| Yukon-Koyukuk | 2,888 | 2,899 | 3,026 | 441 | 380 | 507 | 15.3 | 13.1 | 16.8 | 2,447 | 2,519 | 2,519 |
| Northern Region | 7,876 | 8,057 | 8,053 | 555 | 751 | 796 | 7.0 | 9.3 | 9.9 | 7,321 | 7,306 | 7,257 |
| Nome | 3,017 | 3,132 | 3,080 | 236 | 356 | 323 | 7.8 | 11.4 | 10.5 | 2,781 | 2,776 | 2,757 |
| North Slope Borough | 2,798 | 2,812 | 2,851 | 104 | 124 | 181 | 3.7 | 4.4 | 6.3 | 2,694 | 2,688 | 2,670 |
| Northwest Arctic Bor | 2,061 | 2,113 | 2,122 | 215 | 271 | 292 | 10.4 | 12.8 | 13.8 | 1,846 | 1,842 | 1,830 |
| Southeast Region | 33,130 | 34,521 | 33,262 | 2,622 | 2,419 | 3,219 | 7.9 | 7.0 | 9.7 | 30,508 | 32,102 | 30,043 |
| Haines Borough | 907 | 931 | 914 | 83 | 64 | 103 | 9.2 | 6.9 | 11.3 | 824 | 867 | 811 |
| Juneau Borough | 14,370 | 15,155 | 14,505 | 849 | 927 | 1,190 | 5.9 | 6.1 | 8.2 | 13,521 | 14,228 | 13,315 |
| Ketchikan Gateway Br | 6,680 | 6,943 | 6,773 | 535 | 477 | 721 | 8.0 | 6.9 | 10.6 | 6,145 | 6,466 | 6,052 |
| Pr. of Wales-Outer Ktch | 2,402 | 2,497 | 2,464 | 320 | 306 | 414 | 13.3 | 12.3 | 16.8 | 2,082 | 2,191 | 2,050 |
| Sitka Borough | 3,945 | 4,092 | 3,878 | 310 | 268 | 299 | 7.9 | 6.5 | 7.7 | 3,635 | 3,824 | 3,579 |
| Skagway-Yakutat-Ang | 1,536 | 1,547 | 1,498 | 231 | 174 | 213 | 15.0 | 11.2 | 14.2 | 1,305 | 1,373 | 1,285 |
| Wrangell-Petersburg | 3,290 | 3,356 | 3,230 | 294 | 203 | 279 | 8.9 | 6.0 | 8.6 | 2,996 | 3,153 | 2,951 |
| Southwest Region | 11,717 | 12,418 | 10,583 | 946 | 943 | 750 | 8.1 | 7.6 | 7.1 | 10,771 | 11,475 | 9,833 |
| Aleutian Islands | 2,989 | 3,175 | 2,742 | 112 | 110 | 116 | 3.7 | 3.5 | 4.2 | 2,877 | 3,065 | 2,626 |
| Bethel | 4,706 | 5,045 | 4,237 | 431 | 491 | 335 | 9.2 | 9.7 | 7.9 | 4,275 | 4,554 | 3,902 |
| Bristol Bay Borough | 472 | 467 | 396 | 62 | 30 | 21 | 13.1 | 6.4 | 5.3 | 410 | 437 | 375 |
| Dillingham | 2,071 | 2,145 | 1,882 | 166 | 116 | 143 | 8.0 | 5.4 | 7.6 | 1,905 | 2,029 | 1,739 |
| Wade Hampton | 1,479 | 1,586 | 1,326 | 175 | 196 | 135 | 11.8 | 12.4 | 10.2 | 1,304 | 1,390 | 1,191 |

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

**ALASKA ECONOMIC TRENDS**
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EMPLOYMENT SECURITY DIVISION
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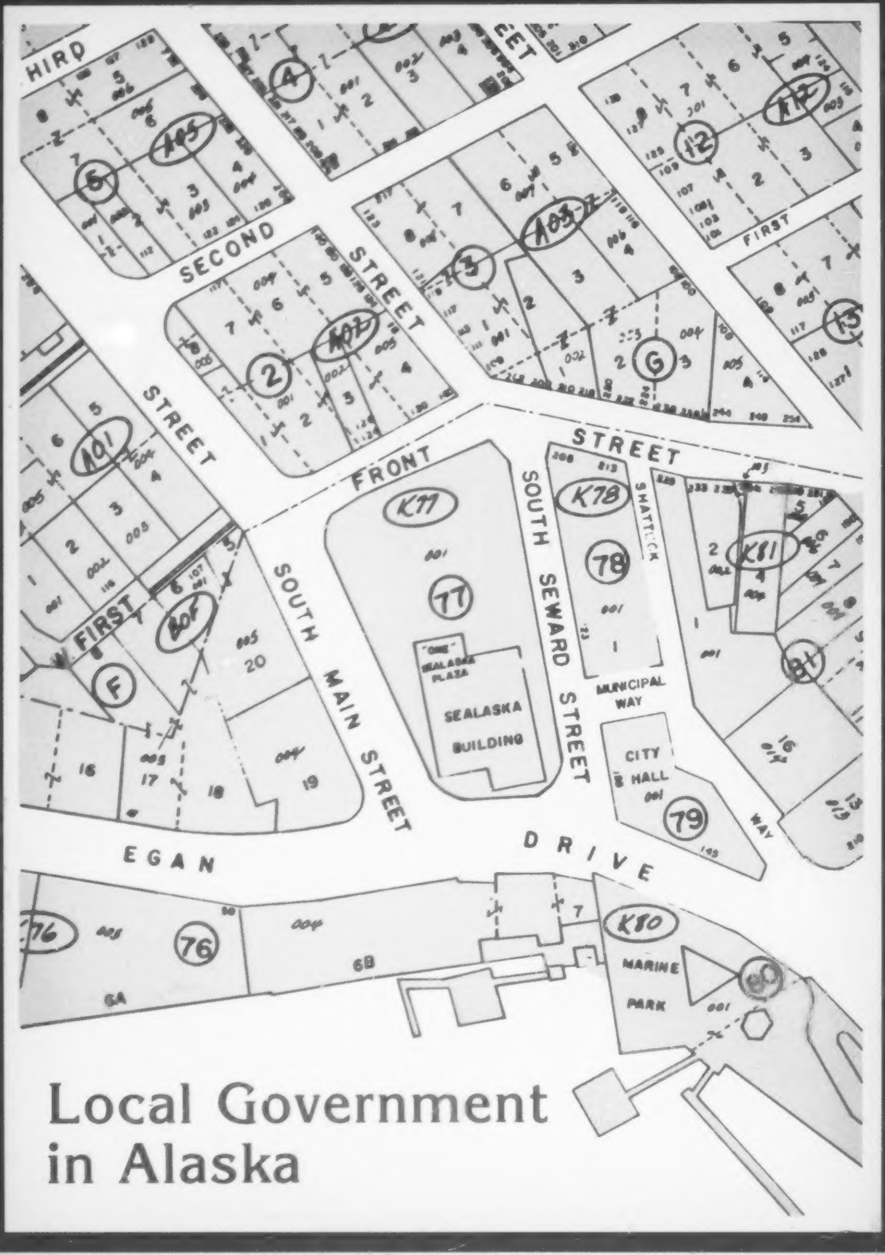
# TRENDS

January
1988

Employment and Earnings in Local Government

Characteristics of Alaska's Unemployed

Alaska's Employment Scene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SEALASKA BUILDING
MUNICIPAL WAY
CITY HALL
WAY
EGAN DRIVE
MARINE PARK

## Local Government in Alaska

# Alaska Economic Trends

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We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact Dr. Edward W. Eboch, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.

**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

# Local Government in Alaska

**By Neal Fried and Greg Huff**

Despite broad based employment losses throughout the economy, it is an unusual specter in Alaska to witness teachers, secretaries, mechanics, and other local government workers receiving pink slips. In the past, local government employment grew pretty much uninterrupted and symbolized the bastion of employment stability and job security. Recent events have brought this to an end.

During the last eighteen months, layoffs of local government employees have become commonplace in many of Alaska's communities. Alaska's two largest communities and dozens of medium and small size cities and villages have all been forced to lay off workers during the past year. While almost all of Alaska's industries have made personnel cutbacks since the recession began in early 1986, cutbacks in local government generally have been smaller than those experienced by other industries.

The fact that layoffs in local government are occurring exemplifies how broad and deep Alaska's recession has been. During past economic downturns, local government has been one of the few industries which provided a buffer to a declining economy but this time it has become a victim.

**During past economic downturns, local government has been one of the few industries which provided a buffer to a declining economy.**

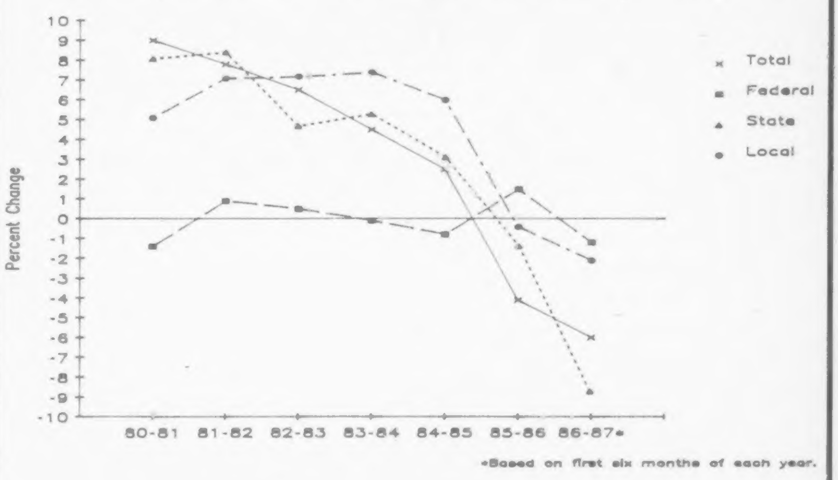
In this article we will examine local government's employment trends in the 1980s and look at how local government's role in Alaska's local economies may differ from that in other states. For the purpose of the discussion, local government employment includes school districts, village, city and borough governments, and all utilities owned by these local governments. The geographic data is categorized by borough or census area.

### Local Government—The Big Picture

Local government, the largest employer in Alaska, represents 13% of nonagricultural wage and salary employment. Local government employment is three times as large as the state's oil industry work force and significantly larger than both state and federal government. Nationally, local government employs 10% of the work force with its share of total employment shrinking, while in Alaska it has grown from 12% in 1980.

Figure 1

Percent Change in Total and Federal, State, and Local Government Employment 1980–1987 in Alaska



*Based on first six months of each year.

Local government employment was a star performer in Alaska during the early 1980s. From 1980 to 1986 local government grew 37%; adding 7,700 new jobs. Local government employment outperformed Alaska's overall economy by eight percentage points for this time period. It also grew more rapidly than both state and federal government—state government increased by 31% while federal government remained largely unchanged (Figure 1).

Nationally, local government employment has grown only slightly over the period (+1.4%). A deep recession, falling federal revenue share funds, and an unwillingness on the part of the public to carry a heavier tax burden have prevented local government from growing nationally.

Employment in local government in Alaska grew in response to the increase in the population from 1980 through 1985 (119,800 additional residents) and the need to provide more services. The ability to expand employment to meet the service needs of a rapidly increasing population was a result of a sharp increase in state financial assistance in the form of revenue sharing, and municipal assistance which more than tripled from 1980 to 1982 ($38 million to $144 millon), and school foundation monies which grew from $216 million to $345 million (Table 1).

State aid to local governments grew so quickly that communities with a tax base were able to provide additional services without raising taxes. In many cases communities were able to reduce the tax burden on their citizens, however, a growing population and expanding business sector provided an expanded tax base and rising property values helped many communities increase local revenues. Those communities without a tax base, largely in rural parts of the state, were able to provide more services to their population as a result of the additional state support.

The infusion of state aid resulted in local governments becoming more dependent on the state as a source of operating revenues. Eighteen percent of the Municipality of Anchorage's operating budget came from the state in 1977 while state support increased to 23% by 1987. The Fairbanks North Star Borough's dependence on state funds grew from 18% to 37% during

### Table 1
### Total State Assistance to Local Governments Operation Budgets
(in Millions)
(State Fiscal Years)

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Noneducation | 45 | 115 | 151 | 136 | 139 | 151 | 151 | 116 |
| Revenue Sharing | 27 | 53 | 56 | 56 | 58 | 60 | 60 | 48 |
| Municipal Assistance | 11 | 57 | 88 | 71 | 71 | 81 | 81 | 66 |
| Shared taxes | 7 | 5 | 7 | 9 | 10 | 10 | 10 | 2 |
| Education | 252 | 308 | 390 | 462 | 482 | 504 | 519 | 426 |
| Foundation Program | 216 | 267 | 345 | 415 | 430 | 455 | 474 | 381 |
| Other Operating Aid | 36 | 41 | 45 | 47 | 52 | 49 | 45 | 45 |
| Total | 297 | 423 | 541 | 598 | 621 | 655 | 670 | 542 |

Source: Office of Management and Budget, Division of Policy.

### Table 2
### Local Government Employment by Census Area
1980-1987

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | First Half 1986 | First Half 1987 | Percent Change 1980-1986 | Percent Change First Half 1986-1987 | Percent of Total 1986 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aleutian Islands | 337 | 379 | 431 | 466 | 530 | 563 | 569 | 604 | 569 | 68.7 | -5.7 | 2.0 |
| Anchorage Borough | 7,071 | 7,231 | 7,290 | 7,860 | 7,860 | 8,520 | 8,464 | 9,156 | 9,467 | 19.7 | 3.4 | 29.6 |
| Bethel | 948 | 1,062 | 1,237 | 1,399 | 1,440 | 1,551 | 1,544 | 1,575 | 1,631 | 62.9 | 3.6 | 5.4 |
| Bristol Bay Borough | 221 | 248 | 246 | 282 | 369 | 294 | 296 | 352 | 316 | 34.1 | -10.0 | 1.0 |
| Dillingham | 318 | 339 | 413 | 437 | 477 | 501 | 509 | 556 | 520 | 60.0 | -6.5 | 1.8 |
| Fairbanks North Star Borough | 1,937 | 2,021 | 2,254 | 2,308 | 2,566 | 2,576 | 2,553 | 2,788 | 2,558 | 31.8 | -8.3 | 8.9 |
| Haines Borough | 124 | 110 | 120 | 113 | 135 | 150 | 167 | 165 | 179 | 35.2 | 8.0 | 0.6 |
| Juneau Borough | 980 | 1,065 | 1,102 | 1,175 | 1,323 | 1,428 | 1,384 | 1,488 | 1,338 | 41.2 | -10.1 | 4.8 |
| Kenai Peninsula Borough | 1,188 | 1,222 | 1,347 | 1,525 | 1,691 | 1,870 | 1,885 | 1,945 | 2,088 | 58.6 | 7.4 | 6.6 |
| Ketchikan Gateway Borough | 695 | 776 | 768 | 896 | 919 | 945 | 889 | 941 | 915 | 27.9 | -2.7 | 3.1 |
| Kobuk[1] | 606 | 724 | 905 | 737 | 837 | 901 | 862 | 886 | 707 | 42.2 | -20.2 | 3.0 |
| Kodiak Island Borough | 545 | 542 | 533 | 588 | 642 | 650 | 700 | 790 | 619 | 28.5 | -21.6 | 2.4 |
| MatSu Borough | 826 | 855 | 919 | 1,035 | 1,214 | 1,391 | 1,559 | 1,689 | 1,559 | 88.9 | -7.7 | 5.4 |
| Nome | 511 | 575 | 667 | 793 | 968 | 1,067 | 987 | 1,002 | 983 | 93.2 | -1.9 | 3.4 |
| North Slope Borough | 1,117 | 1,181 | 1,284 | 1,427 | 1,454 | 1,402 | 1,532 | 1,431 | 1,689 | 37.2 | 18.0 | 5.4 |
| Prince of Wales-Outer Ketchikan | 411 | 477 | 452 | 455 | 515 | 654 | 574 | 539 | 465 | 39.4 | -13.7 | 2.0 |
| Sitka Borough | 366 | 376 | 373 | 388 | 420 | 440 | 435 | 452 | 422 | 18.9 | 6.7 | 1.5 |
| Skagway-Yakutat-Angoon | 311 | 298 | 331 | 348 | 389 | 381 | 376 | 404 | 389 | 20.6 | -3.7 | 1.3 |
| Southeast Fairbanks | 224 | 242 | 278 | 257 | 269 | 281 | 278 | 320 | 269 | 24.0 | -15.7 | 1.0 |
| Valdez-Cordova | 568 | 609 | 651 | 681 | 641 | 670 | 630 | 663 | 646 | 11.0 | -2.5 | 2.2 |
| Wade Hampton | 471 | 493 | 593 | 625 | 786 | 830 | 827 | 852 | 789 | 75.5 | -7.4 | 2.9 |
| Wrangell-Petersburg | 399 | 410 | 446 | 446 | 491 | 511 | 524 | 545 | 514 | 31.5 | -5.8 | 1.8 |
| Yukon-Koyukuk | 758 | 754 | 907 | 1,009 | 1,171 | 1,155 | 1,080 | 1,151 | 1,034 | 42.6 | -10.2 | 3.8 |
| Total | 20,930 | 21,988 | 23,547 | 25,249 | 27,106 | 28,730 | 28,622 | 30,292 | 29,666 | 36.8 | -2.1 | 100.0 |

[1] Now the Northwest Arctic Borough

this period. The same story was repeated in communities throughout the state. Many rural Alaskan communities which have traditionally been dependent upon federal and state funds for the operation of local government and their school district became less dependent on the federal government and more dependent on the state for support during this period.

### Local Government by Area

Local government employment grew in all areas of the state during the 1980-86 period (Table 2). Variation in growth rates of local government employment is a result of many factors including variations in population growth and growth in community owned hospitals and community owned utilities. Juneau, Sitka, and Petersburg have community owned and operated hospitals; Fairbanks and Anchorage have city owned utilities, while Metlakatla (Prince of Wales-Outer Ketchikan Census Area) owns a fish processing plant. Some communities, like Ketchikan, own hospital facilities that are operated by a private contractor. In these cases the employment is counted in the service sector, not local government.

Valdez-Cordova local government employment grew the slowest at 11% while local government employment in the MatSu census area grew by 88% and the Nome area climbed by 93% during this period. Valdez, the largest community in the Valdez-Cordova census area had a substantial increase in local government revenues as a result of Valdez being the terminus of the Trans Alaska Pipeline. Valdez local government employment expanded rapidly upon completion of the pipeline in 1977 so there was less need for expansion by 1980. Oil property taxes allowed Valdez to increase local government employment before the State's increased revenue sharing programs became effective.

From 1980 to 1985 the Matanuska-Susitna Borough was the fastest growing county or equivalent in the United States. The increase in local government employment was to provide basic service to its increased residents. Other communities grew rapidly because they finally had adequate funding for badly needed services, especially water and sewage treatment.

Rural areas that lacked an adequate tax base to support local government services were able to provide needed basic services with increased state support. In a number of communities local government was one of the few industries providing economic stimulus to an otherwise sluggish economy. This is especially true in the rural part of the state where unemployment rates seriously understate economic conditions. In addition to being a source of employment growth, local government was the single largest employer. Many local school districts and local governments were almost entirely dependent on the state for revenues to operate as little or no local tax base exists.

In eight sparsely populated census areas local government employment represents 25% or more of the area's total employment. Local government represents 61% of all employment in the Wade Hampton area and 40% in Bethel. By contrast, in urban areas such as Anchorage, Fairbanks and Juneau, local government represents 10% or less of total employment.

**In eight sparsely populated census areas local government employment represents 25% or more of the area's total employment.**

Thus far local government employment losses have been small. In 1986 when the declines began, local government employment fell by less than one half of one percent. Losses, however, accelerated in 1987. For the first half of the year, local government employment fell 2% compared to the same period the previous year. This was still significantly better than the overall economy where employment declined by 3.5%.

Rural areas have generally experienced relatively larger local government employment losses. The immediate impact has meant a reduction in services. According to a survey conducted by the Department of Community and Regional Affairs in October, 95% of Alaska's 128 cities have had to reduce at least one service. In response to the consequences of falling local government revenues, the governor recently proposed a special aid program to provide at least some economic relief to 18 financially strapped villages in the state.

The economic impact of lost jobs has possibly been more important than the reduction in services, particularly in the rural areas of the state. Local government is partially, and in many cases almost entirely, funded by state funds and is therefore, in an economic sense, a "basic" industry to many local communities. The average monthly earnings of a local government employee in 1986 was 12% above the statewide average earnings. Therefore, a job lost in local government has a sizeable impact on a community's economy. Though the losses have been small thus far, any loss in today's economy exacerbates an already tenuous situation.

In rural Alaska, where local government's economic role is so crucial, employment losses will, of course, be felt more. Most of rural Alaska already suffers from a scarcity of job opportunities, high unemployment and low incomes. Few of these communities have a tax base which could be used to replace lost state revenue. Local government in past years has also been the principal source of growth for many of these economies, which means the future prospects for growth in rural Alaska may be poor unless other sources of economic growth are found.

## Local Education

Providing education is local government's single largest task in terms of money and jobs. In most communities around the state the school district is the single largest employer within the local government sector.

During the State Fiscal Year (SFY) 1987 (July 1 1986 to June 30, 1987), Alaskans spent nearly $700 million dollars to operate schools in over 55 school districts around the state and employed over 16,000 teachers, bus drivers, janitors, and other school staff (Table 3). That works out to be over $6,700 per student and one job for every 6.2 children enrolled in public schools. These ratios, however, vary considerably among school districts because of the high cost of operating in rural areas and economics of scale or size of the larger dis-

Table 3
Local Government Education Employment by Census Area
1980-1987

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | First Half 1986 | First Half 1987 | Percent Change 1980-1986 | Percent Change First Half 1986-1987 | Percent of Total 1986 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aleutian Islands | 223 | 248 | 275 | 282 | 295 | 274 | 250 | 287 | 251 | 12.1 | -12.6 | 1.7 |
| Anchorage Borough | 3,885 | 4,024 | 3,922 | 4,265 | 4,059 | 4,483 | 4,480 | 5,211 | 5,576 | 15.3 | 7.0 | 29.8 |
| Bethel | 618 | 646 | 702 | 804 | 832 | 942 | 927 | 1,001 | 1,074 | 50.0 | 7.3 | 6.2 |
| Bristol Bay Borough | 176 | 191 | 202 | 237 | 305 | 219 | 217 | 275 | 243 | 22.8 | -11.6 | 1.4 |
| Dillingham | 241 | 267 | 291 | 293 | 302 | 293 | 293 | 335 | 321 | 21.5 | -4.1 | 1.9 |
| Fairbanks North Star Borough | 1,112 | 1,156 | 1,316 | 1,322 | 1,470 | 1,426 | 1,436 | 1,656 | 1,489 | 29.2 | -10.1 | 9.6 |
| Haines Borough | 56 | 61 | 68 | 63 | 72 | 73 | 67 | 75 | 67 | 19.4 | -9.8 | 0.4 |
| Juneau Borough | 378 | 417 | 415 | 417 | 465 | 520 | 490 | 570 | 510 | 29.7 | -10.6 | 3.3 |
| Kenai Peninsula Borough | 750 | 819 | 850 | 919 | 987 | 1,081 | 1,016 | 1,120 | 1,233 | 35.3 | 10.0 | 6.8 |
| Ketchikan Gateway Borough | 365 | 432 | 402 | 409 | 423 | 475 | 422 | 477 | 452 | 15.4 | -5.4 | 2.8 |
| Kobuk[1] | 381 | 537 | 647 | 419 | 421 | 456 | 450 | 503 | 390 | 18.1 | -22.5 | 3.0 |
| Kodiak Island Borough | 359 | 350 | 325 | 311 | 335 | 339 | 386 | 470 | 324 | 7.6 | -31.1 | 2.6 |
| MatSu Borough | 621 | 644 | 705 | 809 | 926 | 1,044 | 1,198 | 1,332 | 1,211 | 93.1 | -9.1 | 8.0 |
| Nome | 286 | 330 | 362 | 431 | 497 | 526 | 519 | 581 | 557 | 81.5 | -4.2 | 3.5 |
| North Slope Borough | 332 | 378 | 361 | 451 | 484 | 437 | 480 | 479 | 507 | 44.7 | 5.9 | 3.2 |
| Prince of Wales-Outer Ketch | 117 | 153 | 150 | 168 | 173 | 179 | 161 | 193 | 183 | 37.5 | -5.3 | 1.1 |
| Sitka Borough | 195 | 201 | 198 | 196 | 201 | 212 | 209 | 226 | 199 | 7.3 | -12.1 | 1.4 |
| Skagway-Yakutat-Angoon | 182 | 181 | 187 | 170 | 172 | 191 | 198 | 230 | 222 | 8.6 | -3.3 | 1.3 |
| Southeast Fairbanks | 213 | 231 | 258 | 230 | 230 | 242 | 236 | 282 | 229 | 10.9 | -18.7 | 1.6 |
| Valdez-Cordova | 330 | 352 | 385 | 362 | 357 | 363 | 343 | 371 | 366 | 4.0 | -1.4 | 2.3 |
| Wade Hampton | 340 | 305 | 357 | 367 | 390 | 413 | 441 | 486 | 464 | 29.6 | -4.5 | 2.9 |
| Wrangell-Petersburg | 181 | 198 | 187 | 179 | 195 | 185 | 194 | 224 | 189 | 7.2 | -15.4 | 1.3 |
| Yukon-Koyukuk | 557 | 509 | 540 | 601 | 653 | 657 | 606 | 709 | 630 | 8.8 | -11.1 | 4.0 |
| State Total | 11,899 | 12,628 | 13,105 | 13,707 | 14,239 | 15,032 | 15,018 | 17,092 | 16,685 | 26.2 | -2.4 | 100.0 |

[1] Now the Northwest Arctic Borough

Note: The trends for the first half of 1986 to the first half of 1987 may not be accurate because of reporting errors in Anchorage and Kenai Peninsula census areas. The numbers for these school districts most likely declined.

tricts. An example of a low ratio is the Anchorage School District which spends around $3,600 per student and has one job for every 10 students in its area. On the high end is the Bristol Bay School District which spends over $10,000 per student and has about one job for every 3.9 student.

To support their schools, school districts receive revenues from three sources. The largest share comes from state funds, followed by local funds, and then by federal aid. In 1987, these sources of funds were 67%, 25% and 8% respectively for the state as a whole. However, revenue sources vary from school district to school district. For example, of the 60 or so school districts around the state less than half received revenues from local taxes in SFY 1987. These were among the smallest and most remote school districts. Those school districts receiving local tax funds were within organized boroughs and/or contain first class cities which have a local tax base.

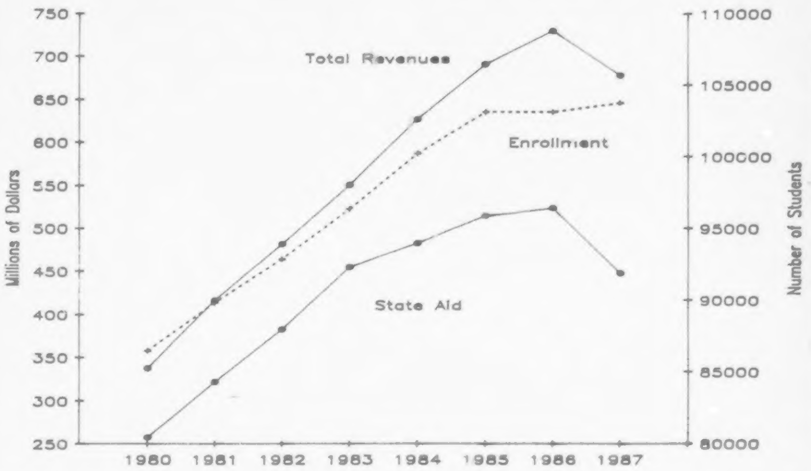
Of the school districts which receive local taxes, anywhere from less than 5% to 50% of their revenues are generated from local taxes. The proportion that is paid locally depends upon the size and type of local tax base. For example, the North Slope and Valdez school districts received approximately 50% of their total operating budgets from local taxes because of their large oil industry tax base.

Generally education funds are enrollment dependent. That is, as the number of students increase the amount of funds allocated to education increases (Figure 2). Employment levels in local education are also primarily enrollment induced, yet inseparable from revenues. Although the number of students increased in the 1986/87 school year, the amount of funds did not increase because of a decline in the amount of state funds available and the inability of communities to make up the difference.

During the 1980s one education job was added for every five additional students enrolled in school. School employment increased from 11,900 to 15,032 as school enrollment increased from 86,500 to over 103,800 from 1980 to 1985. Student enrollment, however, remained fairly stable in 1986 and decreased slightly in 1987 as the number of education jobs fell by 2.5% as school districts adjusted to cutbacks in funding. Indeed, many school districts anticipated even further cutbacks in employment, but the enrollment figures were greater than forecasted and many school districts recalled teachers that had been laid off. At the same time programs were being reduced or even eliminated.

Figure 2

Total Revenues and State Aid to School Operating Fund and Enrollment, SFY 1980 – 1987



### Local Noneducation Employment

Besides providing public education to the children of a community, local governments provide a vast array of other services ranging from public health and safety to recreation. During the early 1980s employment in these and other services grew faster than in the education component.

In 1980 there were approximately 48 Alaskans for every local noneducation government job and by 1986 this had fallen to 44 to one, indicating that the growth was more than population driven (Table 4). The key was the enormous increase in the amount of financial aid to communities in the form of revenue sharing, municipal assistance, and shared taxes that are collected by the state.

From 1980 to 1982 state operating aid to municipalities increased from $45 million to over $151 million.

**During the 1980s one education job was added to every five additional students enrolled in school.**

## Table 4
## Local Government Noneducational Employment by Census Area
## 1980-1987

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | First Half 1986 | First Half 1987 | Percent Change 1980-1986 | Percent Change First Half 1986-1987 | Percent of Total 1986 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aleutian Islands | 114 | 131 | 156 | 184 | 235 | 289 | 319 | 317 | 319 | 178.9 | 0.5 | 2.3 |
| Anchorage Borough | 3.185 | 3.207 | 3.369 | 3.596 | 3.801 | 4.037 | 3.984 | 3.945 | 3.891 | 25.1 | -1.4 | 29.3 |
| Bethel | 329 | 416 | 535 | 596 | 608 | 608 | 617 | 575 | 557 | 87.3 | -3.0 | 4.5 |
| Bristol Bay Borough | 44 | 57 | 44 | 44 | 64 | 75 | 79 | 77 | 73 | 79.1 | -4.6 | 0.6 |
| Dillingham | 77 | 72 | 123 | 144 | 176 | 208 | 216 | 221 | 199 | 180.2 | -10.2 | 1.6 |
| Fairbanks North Star Borough | 826 | 865 | 938 | 986 | 1,095 | 1.149 | 1,117 | 1,132 | 1,068 | 35.3 | -5.6 | 8.2 |
| Haines Borough | 68 | 49 | 52 | 51 | 63 | 77 | 100 | 91 | 111 | 48.3 | 22.6 | 0.7 |
| Juneau Borough | 602 | 647 | 687 | 758 | 858 | 907 | 893 | 918 | 828 | 48.5 | -9.7 | 6.6 |
| Kenai Peninsula Borough | 438 | 403 | 497 | 607 | 704 | 789 | 869 | 825 | 856 | 98.4 | 3.8 | 6.4 |
| Ketchikan Gateway Borough | 330 | 344 | 366 | 486 | 495 | 470 | 467 | 463 | 463 | 41.8 | 0.0 | 3.4 |
| Kobuk 1/ | 225 | 187 | 258 | 318 | 417 | 445 | 412 | 383 | 318 | 83.0 | -17.1 | 3.0 |
| Kodiak Island Borough | 186 | 192 | 208 | 277 | 307 | 311 | 314 | 320 | 295 | 68.9 | -7.6 | 2.3 |
| MatSu Borough | 205 | 211 | 214 | 226 | 289 | 347 | 361 | 357 | 349 | 76.2 | -2.4 | 2.7 |
| Nome | 225 | 245 | 304 | 362 | 472 | 541 | 469 | 421 | 426 | 108.1 | 1.2 | 3.4 |
| North Slope Borough | 785 | 803 | 923 | 976 | 971 | 966 | 1.052 | 952 | 1.181 | 34.1 | 24.1 | 7.7 |
| Prince of Wales-Outer Ketch | 294 | 324 | 301 | 286 | 342 | 475 | 412 | 347 | 283 | 40.2 | -18.4 | 3.0 |
| Sitka Borough | 171 | 174 | 175 | 192 | 219 | 228 | 226 | 226 | 223 | 32.2 | -1.4 | 1.7 |
| Skagway-Yakutat-Angoon | 129 | 118 | 144 | 178 | 217 | 190 | 178 | 174 | 167 | 37.6 | -4.2 | 1.3 |
| Southeast Fairbanks | 11 | 12 | 20 | 27 | 39 | 39 | 42 | 38 | 40 | 276.7 | 6.1 | 0.3 |
| Valdez-Cordova | 238 | 257 | 267 | 318 | 284 | 307 | 288 | 292 | 281 | 20.7 | -4.0 | 2.1 |
| Wade Hampton | 131 | 188 | 236 | 258 | 396 | 417 | 386 | 366 | 325 | 194.8 | -11.2 | 2.8 |
| Wrangell-Petersburg | 218 | 212 | 259 | 267 | 296 | 326 | 330 | 321 | 324 | 51.6 | 0.9 | 2.4 |
| Yukon-Koyukuk | 201 | 245 | 367 | 408 | 518 | 498 | 474 | 442 | 404 | 136.4 | -8.6 | 3.5 |
| State Total | 9.030 | 9.360 | 10.442 | 11.543 | 12.867 | 13.698 | 13.604 | 13.200 | 12.981 | 50.6 | -1.7 | 100.0 |

[1] Now the Northwest Arctic Borough

Although the funds fell slightly in 1983 and 1984, by 1985 the aid again amounted to $151 million. Employment increased nearly 50% from 1980 to 1985 before succumbing to revenue declines in the last half of 1986 (the beginning of SFY 1987) as state aid fell from $151 million to $116. As was the case with local education the communities were unable to make up the difference, thus cutting services and reducing employment levels to accommodate declining revenues.

### Conclusion

Local government, a primary employer in many areas of the state, like all segments of Alaska's economy has had to reduce employment to accommodate a reduction in revenues. Combined with falling revenues the demand for some services has declined because of population and business declines.

The noneducation component of local government had employment levels grow faster from 1980 to 1985 and fell harder in 1986 and 1987 than the education component partly because the number of children enrolled in school around the state has not been drastically altered by the current recession and wave of out-migration.

It is likely that the education component will decrease in the near future because of the apparent decline in the number of school age children recently. As the state adjusts to spending less revenues, communities that can support a tax base will have to pay a larger share of the cost while local governments unable to generate local revenues will remain particularly sensitive to state revenues.

# Employment and Earnings in Local Government

**By Jeff Hadland**

In 1986, local governments in Alaska paid out nearly $900 million in wages to their employees. Neither federal nor state government infused more money into Alaska's economy through wages. No single private sector industry paid out more. Local government employed a monthly average of nearly 29,000 workers during this period, more than either federal or state government.

Local governments have benefited from the large amount of state revenues available for schools, revenue sharing, capital projects and other local programs. With the decline of oil prices and state revenues this loss of funds has hit many local communities hard. The direct and indirect impact of local government is a significant part of every community's economic base. Even with the declines in revenue sources, anticipated declines in employment, and keener competition for jobs; local government job openings should be examined by the jobseeker.

Table 1
Top 40 Alaska Local Government Entities (Excluding Education) in 1986
Average Monthly Employment, Average Annual Earnings and Total Payroll
Ranked By Total Payroll

| Rank | City or Borough | Average Monthly Employment | Average Annual Earnings | Total Payroll |
|---|---|---|---|---|
| 1 | Anchorage Municipality | 3,933 | $43,780 | $172,191,000 |
| 2 | North Slope Borough | 952 | 46,140 | 43,925,004 |
| 3 | Juneau City and Borough | 831 | 27,340 | 22,712,478 |
| 4 | Fairbanks Municipal Utilities | 340 | 44,285 | 15,057,000 |
| 6 | Fairbanks | 260 | 49,634 | 12,917,343 |
| 6 | Fairbanks North Star Borough | 399 | 28,701 | 11,444,459 |
| 7 | Ketchikan | 308 | 34,935 | 10,768,597 |
| 8 | Kenai Peninsula Borough | 287 | 27,309 | 7,828,492 |
| 9 | Mat-Su Borough | 150 | 34,040 | 5,111,653 |
| 10 | Annette Island Canning Co.[1] | 257 | 18,057 | 4,640,785 |
| 11 | Valdez | 140 | 32,463 | 4,539,396 |
| 12 | Kodiak | 153 | 25,120 | 3,839,243 |
| 13 | Sitka City and Borough | 110 | 34,183 | 3,751,635 |
| 14 | Bethel | 125 | 29,696 | 3,704,551 |
| 15 | Kenai | 114 | 28,836 | 3,284,894 |
| 16 | Homer | 100 | 28,592 | 2,849,707 |
| 17 | Kotzebue | 95 | 27,069 | 2,564,790 |
| 18 | Petersburg | 97 | 26,460 | 2,562,219 |
| 19 | Unalaska | 65 | 35,126 | 2,265,640 |
| 20 | Seward | 61 | 34,496 | 2,095,662 |
| 21 | St. Paul | 76 | 26,285 | 1,991,107 |
| 22 | Kodiak Island Borough | 60 | 31,798 | 1,891,961 |
| 23 | Ketchikan Gateway Borough | 63 | 29,085 | 1,842,074 |
| 24 | Palmer | 57 | 31,743 | 1,806,707 |
| 25 | Soldotna | 44 | 39,829 | 1,732,572 |
| 26 | Wrangell | 59 | 27,349 | 1,611,339 |
| 27 | Nome | 42 | 37,042 | 1,555,770 |
| 28 | Cordova | 51 | 30,327 | 1,536,577 |
| 29 | Dillingham | 43 | 28,532 | 1,217,360 |
| 30 | Hoonah | 39 | 28,649 | 1,117,321 |
| 31 | Galena | 38 | 26,019 | 999,553 |
| 32 | Sand Point | 40 | 24,258 | 978,395 |
| 33 | Bristol Bay Borough | 29 | 33,066 | 942,394 |
| 34 | North Pole | 26 | 35,102 | 895,090 |
| 35 | Haines | 25 | 27,623 | 690,582 |
| 36 | Craig | 45 | 14,298 | 644,590 |
| 37 | Barrow | 19 | 34,309 | 643,301 |
| 38 | Whittier | 25 | 24,777 | 615,297 |
| 39 | St. George | 24 | 25,013 | 606,559 |
| 40 | Wasilla | 25 | 23,816 | 605,313 |

[1] The Annette Island Canning Company is owned and operated by the Metlakatla Indian Community.

Source: Alaska Department of Labor, 202 file.

Table 1 shows Alaska's "top 40" local government entities (excluding schools) as identified on the Alaska Department of Labor tax file. Anchorage is, of course, the largest single local government entity in the state paying well over $170 million in wages and employing a monthly average of nearly 4,000 workers in 1986. The North Slope Borough was, surprisingly, the second largest local government in Alaska. Overall, wages paid to employees of local governments, excluding education, amounted to approximately $400 million in 1986.

Average wages paid to local government workers are an indication of individual earnings but are affected by the number of different employees that work during the year. A large number of part-time, seasonal or temporary workers can reduce the average annual earnings figure while a full-time, stable employee base will necessarily increase the average annual earnings.

Local government entities provide different geographic and service coverage. Some cover cities, others boroughs, and some combine both. Services such as utilities and social programs are provided by some city or borough employees but either may be handled by specialized agencies or contracted out. Occasional, activities typically found in the private sector such as fish canning or construction are conducted by local governments. The occupational mix to provide these different types of services affects the average annual earnings shown in Table 1.

## Local Education

The largest sector of local government in Alaska is education. Local schools in Alaska paid out nearly $500 million in wages in 1986 to teachers, administrators and support staff. Table 2 shows Alaska's "top 40" local school districts. Anchorage, Fairbanks, Kenai and Mat-Su were the largest school districts in terms of both wages and employment. Average monthly employment figures are calculated based only on the months

Table 2
Top 40 Alaska School Districts in 1986
Average Monthly Employment, Average Annual Earnings and Total Payroll
Ranked By Total Payroll

| Rank | School District | Average Monthly Employment | Average Annual Earnings | Total Payroll |
|---|---|---|---|---|
| 1 | Anchorage School District | 4,480 | $35,736 | $160,077,304 |
| 2 | Fairbanks North Star Schools | 1,436 | 39,991 | 57,437,300 |
| 3 | Kenai Peninsula Borough Schools | 1,016 | 34,141 | 34,675,555 |
| 4 | Mat-Su Borough Schools | 1,198 | 28,813 | 34,522,964 |
| 5 | Lower Kuskokwim School District | 679 | 32,740 | 22,236,204 |
| 6 | Juneau School District | 490 | 39,190 | 19,215,968 |
| 7 | North Slope Borough Schools | 480 | 39,068 | 18,752,636 |
| 8 | Northwest Arctic Borough Schools | 450 | 29,022 | 13,057,602 |
| 9 | Lower Yukon School District | 359 | 28,973 | 10,411,125 |
| 10 | Kodiak Island Borough Schools | 386 | 26,679 | 10,302,722 |
| 11 | Bering Strait School District | 372 | 27,546 | 10,249,362 |
| 12 | Ketchikan Gateway Boro Schools | 286 | 34,708 | 9,938,058 |
| 13 | Sitka Borough School District | 209 | 34,022 | 7,122,013 |
| 14 | Valdez City Schools | 141 | 36,410 | 5,142,926 |
| 15 | Southwest Region Schools | 189 | 26,630 | 5,041,997 |
| 16 | Yukon Koyukuk School District | 156 | 29,667 | 4,613,230 |
| 17 | Nome Public Schools | 147 | 30,893 | 4,528,459 |
| 18 | Delta/Greely School District | 124 | 34,958 | 4,329,017 |
| 19 | Kuspuk School District | 146 | 27,876 | 4,074,531 |
| 20 | Lake & Peninsula School District | 159 | 24,015 | 3,824,424 |
| 21 | Iditarod Area School District | 141 | 26,068 | 3,686,416 |
| 22 | Yukon Flats School District | 123 | 29,382 | 3,606,601 |
| 23 | Dillingham City School District | 103 | 32,863 | 3,393,062 |
| 24 | Alaska Gateway Schools | 113 | 28,122 | 3,163,738 |
| 25 | Copper River School District | 94 | 32,486 | 3,059,065 |
| 26 | Southeast Island School District | 135 | 21,945 | 2,969,844 |
| 27 | Adak Region Schools | 98 | 25,432 | 2,479,621 |
| 28 | Railbelt School District | 68 | 33,729 | 2,282,362 |
| 29 | Petersburg School District | 76 | 29,545 | 2,255,243 |
| 30 | Wrangell Public Schools | 72 | 31,313 | 2,246,730 |
| 31 | Annette Island School District | 70 | 31,021 | 2,166,298 |
| 32 | Yupiit School District | 102 | 21,186 | 2,155,699 |
| 33 | Haines Borough School District | 67 | 31,921 | 2,141,351 |
| 34 | Cordova School District | 77 | 27,748 | 2,134,279 |
| 35 | Chatham School District | 92 | 20,957 | 1,926,320 |
| 36 | Bristol Bay Borough School | 57 | 28,537 | 1,636,131 |
| 37 | Galena City School District | 39 | 37,138 | 1,439,094 |
| 38 | Nenana City Public Schools | 47 | 30,527 | 1,429,663 |
| 39 | Kashunamiut School District | 43 | 32,598 | 1,393,557 |
| 40 | Kake City School District | 46 | 28,930 | 1,330,802 |

Source: Alaska Department of Labor, 202 file.

in which the individual received wages. This tends to reduce the average monthly employment figure and, by definition, increase the average annual earnings from that expected if all employees in the school districts worked twelve months. Of course, some school districts may rely more heavily upon part-time and temporary workers making interarea comparisons less meaningful.

### Occupations in Local Government

Each year Research and Analysis publishes an occupational employment forecast. Our most recent local government employment forecast results are highlighted in Table 3. The forecast is generated using occupational staffing patterns of local government entities and estimates of change in total employment during the forecast period.

According to our most recent survey of noneducational local governments, police officers, fire fighters, secretaries and clerk typists are the largest single occupational categories. We estimate that in 1986 there were about 700 police officers working for local governments in Alaska representing over six percent of total noneducational local government employment. Other occupations employing a large number of workers include recreation workers, mechanics, bookkeeping and accounting occupations, construction, and maintenance workers.

Unfortunately, virtually all occupational categories are slated for employment declines during the next five years. However, there will still be a large number of local government workers and a significant number of employment opportunities in this sector.

Table 3
Top 40 Occupations in Local Government (Excluding Education)
Alaska 1986 and 1991

| Rank | OES Occupation Title | 1986 Employment | 1991 Employment | Percent of 1986 Local Government Employment |
|---|---|---|---|---|
| 1 | Police Patrol Officers | 700 | 613 | 6.29 |
| 2 | Fire Fighters | 573 | 502 | 5.15 |
| 3 | Secretaries | 298 | 261 | 2.68 |
| 4 | Typists | 278 | 244 | 2.50 |
| 5 | Recreation Workers | 250 | 219 | 2.25 |
| 6 | All Other Mechanics & Repairers | 237 | 208 | 2.13 |
| 7 | Supervisors/Managers: Clerical/Admin Sup | 233 | 204 | 2.09 |
| 8 | Bookkeeping, Acctg, & Auditing Clerks | 225 | 197 | 2.02 |
| 9 | All Other Construction Wkrs, Ex Helpers | 221 | 194 | 1.99 |
| 10 | Maintenance Repairers: General Utility | 213 | 187 | 1.91 |
| 11 | Water/Liquid Waste Treatment Plant Opers | 211 | 185 | 1.90 |
| 12 | Dispatchers: Police, Fire, & Ambulance | 209 | 183 | 1.88 |
| 13 | Switchboard Operators | 207 | 181 | 1.86 |
| 14 | Customer Service Reps: Utilities | 206 | 181 | 1.85 |
| 15 | Supervisors: Mechanics/Installers/Repair | 203 | 178 | 1.82 |
| 16 | Truck Drivers: Heavy or Tractor Trailer | 178 | 156 | 1.60 |
| 17 | Civil Engineering Technicians/Technologists | 173 | 152 | 1.55 |
| 18 | Librarians: Professional | 164 | 144 | 1.47 |
| 19 | Bus Drivers | 157 | 138 | 1.41 |
| 20 | Refuse Collectors | 155 | 136 | 1.39 |
| 21 | All Other Helpers/Laborers/Material Movers | 154 | 135 | 1.38 |
| 22 | Public Admin Chief Execs/Legislators/Gen | 145 | 127 | 1.30 |
| 23 | Municipal Clerks | 137 | 120 | 1.23 |
| 24 | Communication/Transport/Utilities Mgrs | 137 | 120 | 1.23 |
| 25 | All Other Clean/Bldg Svc Wkr, Ex Private | 136 | 119 | 1.22 |
| 26 | Fire Fighting & Prevention Supervisors | 135 | 118 | 1.21 |
| 27 | Emergency Medical Technicians | 131 | 115 | 1.18 |
| 28 | Operating Engineers | 127 | 111 | 1.14 |
| 29 | Police & Detective Supervisors | 125 | 110 | 1.12 |
| 30 | General Managers & Top Executives | 120 | 105 | 1.08 |
| 31 | General Office Clerks | 116 | 102 | 1.04 |
| 32 | All Other Plant & System Operators | 114 | 100 | 1.02 |
| 33 | Electrical & Electronic Engineers | 114 | 100 | 1.02 |
| 34 | Urban & Regional Planners | 112 | 98 | 1.01 |
| 35 | Accountants & Auditors | 109 | 96 | 0.98 |
| 36 | Highway Maintenance Workers | 103 | 90 | 0.93 |
| 37 | Gardeners & Groundskeepers, Ex Farm | 102 | 89 | 0.92 |
| 38 | All Other Protective Service Workers | 100 | 88 | 0.90 |
| 39 | Civil Engineers | 98 | 86 | 0.88 |
| 40 | Library Assistants & Bookmobile Drivers | 97 | 85 | 0.87 |

Source: Alaska Industry-Occupational Outlook, Alaska Department of Labor, 1987.

# Characteristics of Alaska's Unemployed

**By Jeff Hadland**

Each month *Alaska Economic Trends* publishes an estimate of the total number of unemployed persons statewide and by census area. While there is no detailed characteristic information for the total unemployed labor force, characteristic information is available for a major subset of the unemployed-those that receive unemployment insurance payments. Major and detailed occupational categories and place of residence for Alaska claimants residing in the state are discussed below.

Unemployment estimates are determined by an examination of data for the week including the twelfth day of the month. For the benefit week ending November 21, 1987, exactly 9,400 individuals were eligible to receive unemployment insurance payments.

**Table 1**
**Total Unemployment Insurance Claimants for Week Ending November 21, 1987**
**By Region and City**

| **Anchorage-MatSu Region** | |
|---|---|
| Anchorage | 3,053 |
| Big Lake | 58 |
| Chugiak/Eklutna | 108 |
| Eagle River | 214 |
| Elmendorf AFB | 19 |
| Fort Richardson | 21 |
| Girdwood | 26 |
| Houston | 9 |
| Palmer | 300 |
| Skweetna | 1 |
| Sutton | 25 |
| Talkeetna Area | 20 |
| Trapper Creek | 21 |
| Wasilla | 513 |
| Willow | 32 |

| **Gulf Coast Region** | |
|---|---|
| Anchor Point | 47 |
| Chitina | 1 |
| Clam Gulch | 8 |
| Cooper Landing | 6 |
| Copper Center | 23 |
| Cordova | 44 |
| Gakona | 21 |
| Glennallen | 17 |
| Homer | 189 |
| Hope | 3 |
| Kasilof | 40 |
| Kenai | 278 |
| Kodiak | 153 |
| Moose Pass | 3 |
| Nikiski | 55 |
| Ninilchik | 22 |
| Old Harbor | 2 |
| Seldovia | 10 |
| Seward | 138 |
| Soldotna | 284 |
| Sterling | 50 |
| Tatitlek | 1 |
| Tyonek | 5 |
| Valdez | 33 |
| Whittier | 1 |

| **Interior Region** | |
|---|---|
| Allakaket | 2 |
| Anderson | 3 |
| Anvik | 1 |
| Arctic Village | 4 |
| Beaver | 1 |
| Central | 1 |
| Chalkyitsik | 1 |
| Chicken | 1 |
| Circle | 2 |
| Clear | 1 |
| College | 188 |
| Curry's Corner | 43 |
| Delta Junction | 48 |
| Denali National Park | 26 |
| Eagle | 2 |
| Eielson AFB | 22 |
| Ester | 11 |
| Fairbanks | 1,035 |
| Fort Wainwright | 25 |
| Fort Yukon/ | 11 |
| Galena | 7 |
| Grayling | 4 |
| Healy | 21 |
| Holy Cross | 6 |
| Huslia | 6 |
| Kaltag | 2 |
| Koyukuk | 1 |
| Manley Hot Springs | 5 |
| McGrath | 4 |
| Minto | 2 |
| Nenana | 23 |
| Nikolai | 2 |
| North Pole | 250 |
| Northway | 11 |
| Nulato | 3 |
| Ruby | 7 |
| Salcha | 19 |
| Stevens Village | 2 |
| Summit | 21 |
| Tanana | 7 |
| Tok | 58 |
| Two Rivers | 6 |
| Univ Of Ak Fairbanks | 6 |
| Venetie | 1 |

| **Northern Region** | |
|---|---|
| Ambler | 8 |
| Atqasuk | 2 |
| Barrow | 15 |
| Brevig Mission | 1 |
| Buckland | 3 |
| Deering | 1 |
| Elim | 1 |
| Gambell | 6 |
| Kaktovik | 1 |
| Kiana | 6 |
| Kivalina | 2 |
| Kobuk | 2 |
| Kotzebue | 25 |
| Koyuk | 3 |
| Noatak | 8 |
| Nome | 41 |
| Noorvik | 8 |
| Nuiqsut | 2 |
| Point Hope | 4 |
| Saint Michael | 7 |
| Savoonga | 4 |
| Selawik | 7 |
| Shaktoolik | 1 |
| Shishmaref | 14 |
| Shungnak | 3 |
| Stebbins | 2 |
| Teller | 3 |
| Unalakleet | 12 |
| Wainwright | 3 |

| **Southeast Region** | |
|---|---|
| Angoon | 15 |
| Annette | 63 |
| Auke Bay | 22 |
| Craig | 16 |
| Douglas | 30 |
| Excursion Inlet | 9 |
| Gustavus | 6 |
| Haines | 43 |
| Hoonah | 28 |
| Hydaburg | 15 |
| Hyder | 2 |
| Juneau | 333 |

In November it was estimated that there were 23,694 individuals statewide that were unemployed. This means that only 40% of those Alaskans considered unemployed are currently eligible for unemployment insurance benefits. Those ineligible may have exhausted their benefits, may be new entrants to the labor force, or may have a work history in jobs not covered by unemployment insurance.

The percent of unemployed individuals eligible for unemployment insurance benefits during November is about the same as that reported in statistics collected during July of this year, Alaska's traditional seasonal high employment month. The total number of claimants with Alaska addresses has declined by more than seven percent due to exhaustion of benefits, out-migration and long term employment declines. The total number of claimants, both in state and out-of-state, has increased during the same time period.

Unemployment insurance claimants are widely distributed throughout the state. Table 1 shows the residence of claimants by region and community based upon their home address zip code. Anchorage, not surprisingly, has the largest number of unemployment insurance claimants.

Table 1 (continued)
Total Unemployment Insurance Claimants for Week Ending November 21, 1987
By Region and City

| Southeast Region (continued) | |
|---|---|
| Kake | 15 |
| Ketchikan | 217 |
| Klawock | 30 |
| Meyers Chuck | 1 |
| Outer Ketchikan | 8 |
| Pelican | 6 |
| Petersburg | 102 |
| Sitka | 162 |
| Skagway | 33 |
| Tenakee Springs | 1 |
| Thorne Bay | 4 |
| Wrangell | 57 |
| Yakutat | 18 |

| Southwest Region | |
|---|---|
| Akiachak | 1 |
| Akiak | 3 |
| Alakanuk | 1 |
| Aleknagik | 2 |
| Aniak | 5 |
| Bethel | 39 |
| Chefornak | 2 |
| Chevak | 7 |
| Clarks Point | 1 |
| Cold Bay | 1 |
| Dillingham | 23 |
| Dutch Harbor | 1 |
| Eek | 1 |
| Ekwok | 3 |
| Emmonak | 7 |
| False Pass | 1 |
| Goodnews Bay | 3 |
| Hooper Bay | 7 |
| Iliamna | 2 |
| Kasigluk | 4 |
| King Cove | 2 |
| King Salmon | 4 |
| Kipnuk | 16 |
| Kotlik | 3 |
| Kwethluk | 4 |
| Kwigiggingok | 5 |
| Lower Kalskag | 2 |

| Southwest Region (continued) | |
|---|---|
| Manokotak | 3 |
| Mekoryuk | 4 |
| Mountain Village | 6 |
| Naknek | 10 |
| Napakiak | 1 |
| Nightmute | 1 |
| Nondalton | 5 |
| Pedro Bay | 1 |
| Pilot Station | 1 |
| Platinum | 1 |
| Port Alsworth | 1 |
| Port Heiden | 1 |
| Quinhagak | 6 |
| Red Devil | 1 |
| Russian Mission | 3 |
| Saint Marys | 7 |
| Sand Point | 4 |
| Scammon Bay | 3 |
| Sleetmute | 1 |
| South Naknek | 1 |
| St.George/St.Paul | 9 |
| Togiak | 2 |
| Tuntutuliak | 1 |
| Unalaska | 1 |

**The total number of claimants with Alaska addresses has declined by more than seven percent due to exhaustion of benefits, out-migration and long term employment declines.**

### Table 2
### Total Unemployment Insurance Claimants for Week Ending November 21, 1987
### By Region and Two Digit DOT Occupational Category

| | | | Region | | | | |
|---|---|---|---|---|---|---|---|
| Occupation | Anch.-MatSu Count | Gulf Coast Count | Interior Count | Northern Count | Southeast Count | Southwest Count | Total |
| Construction Occs NEC* | 684 | 272 | 399 | 66 | 159 | 63 | 1,643 |
| Recordkeeping | 357 | 82 | 124 | 10 | 69 | 10 | 652 |
| Food Service | 252 | 121 | 138 | 10 | 112 | 14 | 647 |
| Typing | 248 | 45 | 75 | 15 | 72 | 14 | 469 |
| Excavate/Paving | 213 | 80 | 96 | 9 | 18 | 2 | 418 |
| Food Processing | 47 | 174 | 12 | 1 | 123 | 20 | 377 |
| Managers NEC* | 227 | 55 | 63 | 4 | 22 | 5 | 376 |
| Materials Handling | 146 | 36 | 71 | 4 | 78 | 3 | 338 |
| Mechanics | 158 | 54 | 63 | 9 | 30 | 6 | 320 |
| Truck Drivers | 145 | 32 | 101 | 5 | 25 | 2 | 310 |
| Administrative Spec. | 148 | 25 | 72 | 2 | 36 | 6 | 289 |
| Electrical | 150 | 17 | 63 | 2 | 24 | 1 | 257 |
| Information Distribution | 128 | 24 | 30 | 2 | 25 | 0 | 209 |
| Misc. Sales | 89 | 14 | 41 | 3 | 44 | 3 | 194 |
| Transport. Occs. NEC* | 93 | 25 | 43 | 3 | 22 | 7 | 193 |
| Architecture | 117 | 14 | 41 | 1 | 19 | 0 | 192 |
| Sales-Commodities NEC* | 107 | 24 | 21 | 0 | 7 | 1 | 160 |
| Misc. Professional | 68 | 21 | 26 | 2 | 34 | 6 | 157 |
| Painting/Plastering | 91 | 15 | 38 | 0 | 5 | 1 | 150 |
| Building Service | 70 | 24 | 27 | 4 | 18 | 3 | 146 |
| Welders | 52 | 41 | 29 | 3 | 13 | 0 | 138 |
| Education | 43 | 25 | 35 | 10 | 15 | 9 | 137 |
| Metal Fab. NEC* | 92 | 13 | 18 | 0 | 6 | 0 | 129 |
| Lodging | 48 | 20 | 31 | 1 | 26 | 2 | 128 |
| Protective Service | 42 | 12 | 20 | 9 | 15 | 11 | 109 |
| Misc. Personal Svc. | 42 | 10 | 18 | 2 | 28 | 5 | 105 |
| Structural Work NEC* | 32 | 12 | 23 | 4 | 15 | 9 | 95 |
| Misc. Clerical | 52 | 13 | 17 | 1 | 7 | 2 | 92 |
| Stock Clerks | 47 | 8 | 18 | 1 | 6 | 5 | 85 |
| Mineral Extraction | 32 | 22 | 7 | 2 | 12 | 0 | 75 |
| Life Sciences | 20 | 9 | 20 | 0 | 24 | 2 | 75 |
| Fishery | 11 | 14 | 1 | 1 | 35 | 6 | 68 |
| Forestry | 13 | 6 | 15 | 0 | 28 | 0 | 62 |
| Sales-Services | 40 | 7 | 9 | 0 | 5 | 0 | 61 |
| Medicine/Health | 33 | 8 | 14 | 1 | 4 | 1 | 61 |
| Plant Farming | 46 | 1 | 3 | 0 | 4 | 0 | 54 |
| Utility Distribution | 10 | 4 | 15 | 4 | 8 | 2 | 43 |
| Mathematics/Science | 21 | 3 | 7 | 0 | 4 | 0 | 35 |
| Art | 22 | 2 | 6 | 0 | 3 | 0 | 33 |
| Apparel | 9 | 4 | 5 | 1 | 3 | 1 | 23 |
| Entertainment/Rec. | 13 | 2 | 4 | 1 | 3 | 0 | 23 |
| Graphic Arts | 15 | 2 | 5 | 0 | 1 | 0 | 23 |
| Domestic Service | 10 | 3 | 5 | 1 | 4 | 0 | 23 |
| Law | 17 | 3 | 0 | 0 | 1 | 0 | 21 |
| Printing | 15 | 1 | 0 | 0 | 1 | 0 | 17 |

All unemployment insurance claimants are identified with an occupational code indicating their last or primary occupation. Table 2 shows the number of claimants by 2 digit Dictionary of Occupational Title (DOT) occupational code sorted by the total number of claimants.

Construction related occupations and clerical and professional occupations are the primary sources of claimants for the month of November. When this November data is compared with data for July, claimants from construction occupation have increased in number in response to the

### Table 2 (continued)
### Total Unemployment Insurance Claimants for Week Ending November 21, 1987
### By Region and Two Digit DOT Occupational Category

| | | | Region | | | | |
|---|---|---|---|---|---|---|---|
| Occupation | Anch.-MatSu Count | Gulf Coast Count | Interior Count | Northern Count | Southeast Count | Southwest Count | Total |
| Writing | 8 | 2 | 2 | 1 | 2 | 0 | 15 |
| Sales-Commodities | 13 | 0 | 1 | 0 | 1 | 0 | 15 |
| Wood Machining | 5 | 1 | 0 | 0 | 8 | 0 | 14 |
| Equip./Instr. Repair | 6 | 3 | 2 | 0 | 2 | 0 | 13 |
| Machine Trades | 4 | 0 | 7 | 0 | 1 | 0 | 12 |
| Wood Repair | 8 | 0 | 2 | 0 | 1 | 0 | 11 |
| Barber, Cosmetology | 6 | 3 | 2 | 0 | 0 | 0 | 11 |
| Metal Machining | 4 | 3 | 0 | 0 | 3 | 0 | 10 |
| Animal Farming | 9 | 1 | 0 | 0 | 0 | 0 | 10 |
| Amusement Service | 8 | 0 | 1 | 0 | 0 | 0 | 9 |
| Social Sciences | 4 | 2 | 2 | 0 | 1 | 0 | 9 |
| Petroleum Process. | 1 | 8 | 0 | 0 | 0 | 0 | 9 |
| Elec. Equip. Repair | 3 | 1 | 2 | 0 | 0 | 0 | 6 |
| Textile Repair | 3 | 1 | 1 | 0 | 0 | 0 | 5 |
| Museum/Library | 3 | 1 | 0 | 0 | 1 | 0 | 5 |
| Misc. Repair | 2 | 2 | 1 | 0 | 0 | 0 | 5 |
| Metalworking | 1 | 3 | 1 | 0 | 0 | 0 | 5 |
| Painting/Decorating | 2 | 0 | 1 | 0 | 0 | 0 | 3 |
| Textiles | 2 | 0 | 1 | 0 | 0 | 0 | 3 |
| Stone Process. | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| Misc. | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Misc. Agriculture | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Rubber/Plastic Repair | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Metal Fabrication | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Misc. Process. | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Metal Processing | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Ore Refining | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Stone Cutting | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Paperworking | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Bench Work | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 4.419 | 1,431 | 1.898 | 195 | 1.233 | 224 | 9,400 |

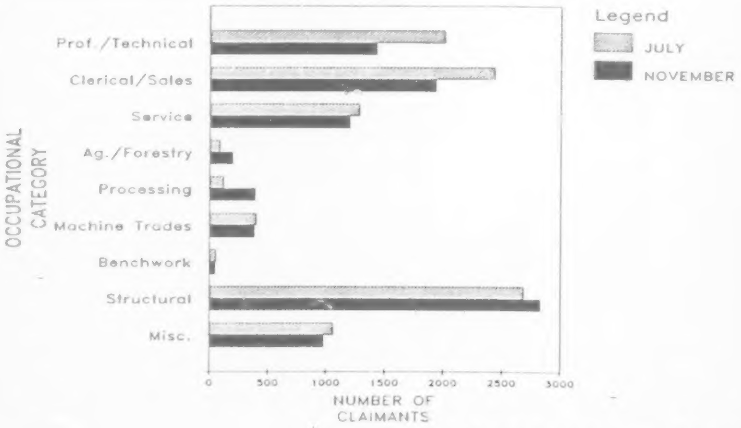
* Not elsewhere classified.

Source: Alaska Department of Labor, Research and Analysis, December 20, 1987.

seasonal downturn in construction activity while the professional and clerical occupations have declined dramatically. The decline in professional and clerical sectors is primarily due to a reduced number of educational claimants.

Anchorage, Fairbanks, Kenai, and Mat-Su are the largest census areas in terms of unemployment insurance claimant activity. Table 3 shows the number of eligible claimants by census area and broad occupational category. Kenai was the fourth largest source of claims activity in July and has moved up to the third largest source of claims activity for November due to an increase in food processing and construction claimants. Figure 1 illustrates the difference in claims activity by major occupational category between July and November.

## Figure 1
## Total Unemployment Insurance Claimants By Occupational Category For Benefit Week Ending 7/25/87 and 11/21/87



Source: Alaska Department of Labor

## Table 3
## Total Unemployment Insurance Claimants for Week Ending November 21, 1987
## By Census Area and One Digit DOT Occupational Code

| | Occupations[1] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Census Area | Prof., Technical | Clerical Sales | Service | Ag.,Fish Forestry | Processing | Machine Trades | Bench Work | Structural | Misc. | Total |
| Aleutian Islands | 2 | 2 | 3 | 0 | 4 | 1 | 0 | 7 | 0 | 19 |
| Anchorage | 589 | 882 | 376 | 53 | 42 | 133 | 20 | 986 | 360 | 3,441 |
| Bethel | 13 | 16 | 16 | 3 | 13 | 3 | 0 | 32 | 5 | 101 |
| Bristol Bay | 1 | 1 | 6 | 0 | 0 | 0 | 0 | 4 | 3 | 15 |
| Dillingham | 7 | 7 | 7 | 1 | 3 | 0 | 0 | 16 | 3 | 44 |
| Fairbanks | 252 | 295 | 193 | 13 | 12 | 65 | 9 | 571 | 191 | 1,601 |
| Haines | 3 | 12 | 13 | 3 | 0 | 0 | 0 | 7 | 5 | 43 |
| Juneau | 87 | 85 | 64 | 8 | 6 | 15 | 2 | 105 | 22 | 394 |
| Kenai | 142 | 189 | 160 | 11 | 70 | 56 | 7 | 405 | 95 | 1,135 |
| Ketchikan | 23 | 60 | 40 | 10 | 3 | 4 | 0 | 35 | 47 | 222 |
| Kodiak | 11 | 14 | 12 | 5 | 74 | 5 | 0 | 26 | 8 | 155 |
| Mat-Su | 155 | 199 | 111 | 28 | 10 | 57 | 9 | 328 | 81 | 978 |
| Nome | 15 | 19 | 12 | 0 | 1 | 6 | 0 | 33 | 9 | 95 |
| North Slope | 2 | 2 | 4 | 0 | 0 | 1 | 0 | 16 | 2 | 27 |
| Northwest Arctic | 5 | 11 | 12 | 1 | 0 | 2 | 0 | 35 | 7 | 73 |
| POW-Outer Ktkn | 12 | 13 | 25 | 9 | 27 | 6 | 0 | 19 | 20 | 131 |
| SE Fairbanks | 14 | 22 | 21 | 5 | 0 | 2 | 0 | 36 | 20 | 120 |
| Sitka | 21 | 26 | 26 | 8 | 32 | 5 | 1 | 30 | 13 | 162 |
| Skag.)Yak.)Angoon | 14 | 22 | 20 | 8 | 8 | 4 | 0 | 17 | 14 | 107 |
| Valdez-Cordova | 19 | 14 | 25 | 6 | 38 | 2 | 0 | 19 | 18 | 141 |
| Wade Hampton | 7 | 9 | 4 | 2 | 1 | 2 | 0 | 17 | 3 | 45 |
| Wrangell-Peters. | 9 | 18 | 18 | 21 | 47 | 9 | 0 | 27 | 25 | 174 |
| Yukon-Koyukuk | 26 | 19 | 33 | 1 | 2 | 5 | 0 | 59 | 32 | 177 |
| TOTAL | 1,429 | 1,937 | 1,201 | 196 | 393 | 383 | 48 | 2,830 | 983 | 9,400 |

Source: Alaska Department of Labor, Research and Analysis, December 20, 1987.

[1] Note: The broad occupational categories identified in Table 3 encompass hundreds of individual occupations. The following information identifies the most frequent occupations included in each of the above categories:

**Professional, Technical and Managerial occupations include:** Teachers and school personnel, managers, administrative specialists (accounting, personnel, etc), Architects and Engineers.

**Clerical and Sales occupations include:** Typists and Secretaries, Bookkeepers and Clerks, Telephone Operators, Ticket Agents and Salespersons.

**Service occupations include:** Food service workers, Building service workers, and Protective service workers.

**Agriculture, Forestry and Fisheries occupations include:** Loggers, Horticultural specialties, and Fish Harvesters.

**Processing occupations include:** Seafood processing workers and Wood processing workers.

**Machine Trade occupations include:** Mechanics, Printers and Wood Machining occupations (sawing, planing, etc.)

**Benchwork occupations include:** Technical instrument repairers, Electrical equipment repair, Furniture repair.

**Structural occupations include:** Carpenters, Plumbers, Roofers, Electricians, grading and paving occupations, Welders.

**Miscellaneous occupations include:** Packaging and materials handling occupations, Truck Drivers, Air and Water transport occupations, mineral extraction occupations (Drillers, crushing occupations, Blasters).

The Gulf Coast and Southeast regions have shown an actual increase in unemployment insurance claimants from July to November 1987. Claimant activity has likely been spurred by a seasonal decline in seafood processing, timber and construction activity.

# Alaska's Employment Scene

By Edward Eboch

Alaska's economic problems persist despite several basic industries having their best performance in years. Employment losses this time of year are not unexpected, as firms adjust to the seasonal nature of their industries (Table 1), but all Alaska basic industries, except oil and gas have over-the-year gains in employment.

Manufacturing, both timber and fishing, and mineral mining are up strongly over-the-year. In addition, tourism has improved, including an increase in off-season visitors as evidenced by Anchorage reporting improved convention and visitor bookings. Unfortunately, Alaska's economy is still driven by oil and the cutbacks in oil industry activity and cutbacks in state expenditures continue to reverberate through the economy.

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

|  | p/<br>11/87 | r/<br>10/87 | 11/86 | Changes From:<br>10/87 | <br>11/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 206,000 | 211,800 | 214,700 | -5,800 | -8,700 |
| Mining | 8,100 | 8,300 | 8,400 | -200 | -300 |
| Construction | 10,400 | 12,600 | 12,600 | -2,200 | -2,200 |
| Manufacturing | 11,200 | 12,200 | 8,400 | -1,000 | 2,800 |
| Food & Kindred Prod. | 5,200 | 5,800 | 2,700 | -600 | 2,500 |
| Lumber & Paper Prod. | 3,000 | 3,300 | 2,600 | -300 | 400 |
| All Other Mfg. | 3,000 | 3,100 | 3,100 | -100 | -100 |
| Trans. Comm. & Utilities | 16,900 | 17,700 | 17,700 | -800 | -800 |
| Trucking & Whseing. | 2,000 | 2,100 | 2,100 | -100 | -100 |
| Water Transportation | 900 | 1,100 | 1,100 | -200 | -200 |
| Air Transportation | 5,300 | 5,500 | 5,300 | -200 | 0 |
| Other Trans. Comm. & Utilities | 8,700 | 9,000 | 9,200 | -300 | -500 |
| Trade | 41,000 | 41,600 | 43,300 | -600 | -2,300 |
| Wholesale | 7,300 | 7,400 | 7,600 | -100 | -300 |
| Retail | 33,700 | 34,200 | 35,700 | -500 | -2,000 |
| Gen. Mer. & Apparel | 5,500 | 5,500 | 5,600 | 0 | -100 |
| Food Stores | 5,800 | 6,000 | 6,000 | -200 | -200 |
| Eating & Drinking Pl. | 11,800 | 12,000 | 12,800 | -200 | -1,000 |
| Other Retail Trade | 10,600 | 10,700 | 11,300 | -100 | -700 |
| Finance-Ins. & R.E. | 11,200 | 11,400 | 12,400 | -200 | -1,200 |
| Services & Misc. | 40,500 | 40,800 | 42,900 | -300 | -2,400 |
| Government | 66,700 | 67,200 | 69,000 | -500 | -2,300 |
| Federal | 18,600 | 18,600 | 18,500 | 0 | 100 |
| State | 19,200 | 19,600 | 19,700 | -400 | -500 |
| Local | 28,900 | 29,000 | 30,800 | -100 | -1,900 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics.
Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.

r/ Denotes Revised Estimates

## Industry Employment

**Mining** employment declined over-the-month and over-the-year. Oil industry employment typically declines through December and then picks up after the first of the year. Mineral mining employment, while suffering seasonal losses, is up substantially over the year. The gains in mineral mining were not sufficient to offset the losses in the oil industry which dominates employment in the mining industry.

Drilling activity on the North Slope is increasing, mostly workover operations. With the uncertainty about oil prices oil companies continue to approach expanded exploration and development cautiously.

The **construction** industry continues to lose ground, with year-to-year losses of over 16% in employment. Not only has employment declined but also the average hours worked by those still with jobs has dropped, driving down average weekly wages (Table 8). A review of the sample data suggests the drop in hours is widespread within the industry. The state's preliminary capital budget provided little holiday cheer for construction employees, however, other potential projects suggest that 1988 could be as good or better than 1987. 1987.

The oil companies have several development projects planned assuming the price of oil does not drop significantly. In addition, military planned construction (including 150 housing units at Fort Wainwright) and other federal projects (including a 150 bed Native medical center), state

### Table 2
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Anchorage

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 11/87 | 10/87 | 11/86 | 10/87 | 11/86 |
| Nonag. Wage & Salary | 101,250 | 102,800 | 106,600 | -1,550 | -5,350 |
| Mining | 3,250 | 3,350 | 3,200 | -100 | 50 |
| Construction | 5,750 | 6,800 | 6,750 | -1,050 | -1,000 |
| Manufacturing | 2,150 | 2,300 | 2,150 | -150 | 0 |
| Food & Kindred Prod. | 400 | 500 | 400 | -100 | 0 |
| Other Mfg. | 1,750 | 1,800 | 1,750 | -50 | 0 |
| Trans. Comm. & Utilities | 8,650 | 9,150 | 9,250 | -500 | -600 |
| Trucking & Whseing. | 1,300 | 1,400 | 1,350 | -100 | -50 |
| Water Transportation | 250 | 300 | 300 | -50 | -50 |
| Air Transportation | 2,800 | 2,950 | 3,050 | -150 | -250 |
| Other Trans. Comm. & Utilities | 4,300 | 4,500 | 4,550 | -200 | -250 |
| Trade | 24,650 | 24,450 | 25,850 | 200 | -1,200 |
| Wholesale | 5,450 | 5,450 | 5,800 | 0 | -350 |
| Retail | 19,200 | 19,000 | 20,050 | 200 | -850 |
| Gen. Merchandise | 2,000 | 1,900 | 2,050 | 100 | -50 |
| Food Stores | 3,100 | 3,100 | 3,000 | 0 | 100 |
| Eating & Drinking Pl. | 7,300 | 7,300 | 7,900 | 0 | -600 |
| Other Retail Trade | 6,800 | 6,700 | 7,100 | 100 | -300 |
| Finance-Ins. & R.E. | 7,200 | 7,300 | 8,050 | -100 | -850 |
| Services & Misc. | 23,550 | 23,300 | 24,300 | 250 | -750 |
| Government | 26,050 | 26,150 | 27,050 | -100 | -1,000 |
| Federal | 10,500 | 10,600 | 10,400 | -100 | 100 |
| State | 6,950 | 6,950 | 7,300 | 0 | -350 |
| Local | 8,600 | 8,600 | 9,350 | 0 | -750 |

### Table 3
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Anchorage-MatSu

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 11/87 | 10/87 | 11/86 | 10/87 | 11/86 |
| Nonag. Wage & Salary | 107,350 | 109,200 | 113,200 | -1,850 | -5,850 |
| Mining | 3,250 | 3,400 | 3,200 | -150 | 50 |
| Construction | 5,950 | 7,150 | 7,100 | -1,200 | -1,150 |
| Manufacturing | 2,200 | 2,350 | 2,250 | -150 | -50 |
| Trans. Comm. & Utilities | 9,250 | 9,800 | 9,950 | -550 | -700 |
| Trade | 26,150 | 25,900 | 27,350 | 250 | -1,200 |
| Finance-Ins. & R.E. | 7,750 | 7,850 | 8,550 | -100 | -800 |
| Services & Misc. | 24,550 | 24,400 | 25,550 | 150 | -1,000 |
| Government | 28,250 | 28,350 | 29,250 | -100 | -1,000 |

projects (Bradley Lake, roads, and facility construction) as well as private projects (construction of a new hotel to replace the Denali National Park Hotel) should keep the construction industry from losing ground through next year.

One problem in assessing the extent of the loss in construction and oil and gas employment is the classification of employers. With the trouble in the oil patch, many firms that concentrated on oil field service activities (including excavating slush pits, grading and building of foundations at oil well locations) but also did construction work are now almost exclusively in heavy or general construction. Because of their previous classification, these firms make it appear that oil and gas employment is better than our estimates indicate and that construction is worse than the estimates suggest.

The **manufacturing** industry offers the greatest potential for Alaska over the short run. The growth in this industry comes at a time that reduced state spending and oil company investments are negatively impacting the state's economy. While this has not prevented the decline in employment statewide it has helped many costal communities.

The timber industry is enjoying one of its best years this decade. Settlement of the controversy over the federal funding for management of the Tongass National Forest and the Tongass timber contracts should help the timber industry in Alaska. Clearly the fishing industry and other interested parties needs can be balanced against the needs of the timber industry to insure success of both these important basic industries.

The improved exchange rate has created interest in opening additional sawmills in Alaska as it is becoming cost effective to have some preliminary timber processing done in Alaska rather than in Japan, Alaska's major market for timber products. Should the state timber sale set for the Susitna Valley north of Anchorage occur as planned we may see the development of a timber industry in Southcentral Alaska.

Gains in fish processing employment has been spectacular. Fish processing employment is showing impressive over-the-year gains, reaching levels in November not seen since the early 1980s when king crab harvests were an important contributor to local economies. While crab harvests have improved, the gains in fish harvesting employment is primarily a result of the increased bottomfish harvests. The benefit of the increased bottomfish catch is the jobs tend to be for a longer duration meaning more local hire.

### Table 4
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Fairbanks

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/<br>11/87 | r/<br>10/87 | 11/86 | 10/87 | 11/86 |
| Nonag. Wage & Salary | 25,550 | 26,050 | 27,100 | -500 | -1,550 |
| Mining | 100 | 100 | 100 | 0 | 0 |
| Construction | 1,550 | 1,950 | 1,700 | -400 | -150 |
| Manufacturing | 500 | 550 | 600 | -50 | -100 |
| Trans. Comm. & Utilities | 2,400 | 2,500 | 2,550 | -100 | -150 |
| Trucking & Whseing. | 350 | 350 | 350 | 0 | 0 |
| Air Transportation | 850 | 900 | 900 | -50 | -50 |
| Other Trans. Comm. & Utilities | 1,200 | 1,250 | 1,300 | -50 | -100 |
| Trade | 5,450 | 5,350 | 5,900 | 100 | -450 |
| Wholesale | 750 | 800 | 950 | -50 | -200 |
| Retail | 4,700 | 4,550 | 4,950 | 150 | -250 |
| Gen. Mer. & Apparel | 600 | 500 | 650 | 100 | -50 |
| Food Stores | 750 | 800 | 800 | -50 | -50 |
| Other Retail Trade | 3,350 | 3,250 | 3,500 | 100 | -150 |
| Finance-Ins. & R.E. | 900 | 950 | 1,050 | -50 | -150 |
| Services & Misc. | 5,150 | 5,250 | 5,650 | -100 | -500 |
| Government | 9,500 | 9,400 | 9,550 | 100 | -50 |
| Federal | 3,000 | 2,900 | 2,900 | 100 | 100 |
| State | 4,050 | 4,050 | 4,000 | 0 | 50 |
| Local | 2,450 | 2,450 | 2,650 | 0 | -200 |

### Table 5
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Interior

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/<br>11/87 | r/<br>10/87 | 11/86 | 10/87 | 11/86 |
| Nonag. Wage & Salary | 29,150 | 30,050 | 31,100 | -900 | -1,950 |
| Mining | 200 | 250 | 250 | -50 | -50 |
| Construction | 1,600 | 2,050 | 1,750 | -450 | -150 |
| Manufacturing | 550 | 550 | 600 | 0 | -50 |
| Trans. Comm. & Utilities | 2,650 | 2,850 | 2,850 | -200 | -200 |
| Trade | 5,750 | 5,700 | 6,200 | 50 | -450 |
| Finance-Ins. & R.E. | 1,000 | 1,000 | 1,100 | 0 | -100 |
| Services & Misc. | 5,650 | 5,800 | 6,150 | -150 | -500 |
| Government | 11,750 | 11,850 | 12,200 | -100 | -450 |

This segment of the industry should continue to improve as the Fishery Council recently increased to 1.03 million metric tons the quota for U.S. shore based and floating processors for the harvest of bottomfish. Preliminary salmon landing figures show 1987 as the lowest in eight years. It is to early to determine how cutback in state support to hatchery programs will impact the salmon harvests in the future.

The **secondary/support industries** are now the major drag on the economy as over the year losses continue to mount—trade and services down over 5% from last year and finance, insurance, and real estate (TPCU) down 10% as the financial sector consolidates.

To date, eight Alaska financial institution have closed or merged with stronger institutions. First Interstate Bank, the largest and first state chartered bank to fail, was recently merged with National Bank of Alaska. So far the closure/consolidation of Alaska financial institutions have proceeded with little impact on the economy or individuals, with the exception of the loss of employment in that industry. Most failing financial institutions have been merged with stronger institutions so that deposits have been protected and services quickly resumed. Additional consolidation is expected as this industry adjusts to the new economic realities of Alaska's economy.

As a result of the consolidation in the financial institutions, average wages in the industry has decline (Table 8). As financial institutions merge, middle and upper management is consolidated while the rest of the staff tends to be retained. The result is a higher percent of lower paying positions.

Trade and services typically have small month-to-month losses from October to November but this year the month-to-month loss is greater than usual. All segments of the industry have suffered, but the major over-the-year losses have been in eating and drinking places and home furnishing and building material outlets. Over-the-month employment losses in services are primarily in hotels and motels while over-the-year losses are concentrated in business services and nonclassified firms which represent new business that have not been identifies yet as to their major activity. Early indications are for good holiday sales so employment may improve in trade with the release of the December numbers.

Government employment also declined during November. In the past, gains in educational employment from October to November managed to partially offset the losses in noneducational government employment. This year over-the-month educational employment was small but losses in noneducation employment was also less than usual as local and state government hired less seasonal employment that usual.

Some of the over-the-year losses in state government may be explained by the Retirement Incentive Program. Over 1,000 State and University of Alaska employees with a like number of local government employees have taken advantage of the Retirement Incentive Program, many at the end of September. It may be several months until qualified candidates fill all the available positions.

While total employment is down 4% and local educational employment is down in excess of 5% over-the-year, public school enrollments are down only 2% according to the Alaska Department of Education. Singles and couples have the easiest time of picking up and leaving as they lose their jobs. Parents with children are more attached to the community and will often make a greater effort to remain. It is also common for people to transfer their children from private schools to public schools during difficult economic times.

## Geographic Profile

Anchorage has been the hardest hit during this recession because Anchorage acts as a regional supplier of both employment and goods and services for much of the state. For example, construction is a major export industry for Anchorage. While employment for construction is reported in the area the work occurs, many construction workers lived and spent their income in the Anchorage/MatSu area. In addition, most of the materials are either purchased from Anchorage firms or are transshipped through Anchorage. Therefore cutbacks in construction in rural areas also impact the Anchorage support industries much more than the rural support industries.

The weakness in Anchorages economy is most apparent in the real estate market. Foreclosures persist as Alaska Housing Finance Corporation's inventory of houses continues to mount. The most recent numbers from the Department of Education indicate a loss of approximately 1,000 in school enrollments since the official October count. The population, employment, housing prices, and other declining numbers have a psychological impact. As a result more adjustments are anticipated even though other factors in the economy suggest the worse may be over for Anchorage.

### Table 6
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Southeast Alaska

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 11/87 | 10/87 | 11/86 | 10/87 | 11/86 |
| Nonag. Wage & Salary | 27,150 | 28,400 | 27,450 | -1,250 | -300 |
| Construction | 950 | 1,050 | 1,150 | -100 | -200 |
| Manufacturing | 3,450 | 4,100 | 3,000 | -650 | 450 |
| Food & Kindred Prod. | 500 | 850 | 400 | -350 | 100 |
| Lumber & Paper Prod. | 2,750 | 3,050 | 2,400 | -300 | 350 |
| All Other Mfg. | 200 | 200 | 200 | 0 | 0 |
| Trans. Comm. & Utilities | 1,950 | 2,050 | 1,950 | -100 | 0 |
| Trade | 4,250 | 4,350 | 4,300 | -100 | -50 |
| Wholesale | 350 | 350 | 300 | 0 | 50 |
| Retail | 3,900 | 4,000 | 4,000 | -100 | -100 |
| Finance-Ins. & R.E. | 1,100 | 1,150 | 1,200 | -50 | -100 |
| Mining, Services & Misc. | 4,250 | 4,300 | 4,350 | -50 | -100 |
| Government | 11,200 | 11,400 | 11,500 | -200 | -300 |
| Federal | 2,050 | 2,100 | 2,050 | -50 | 0 |
| State | 4,900 | 5,050 | 5,050 | -150 | -150 |
| Local | 4,250 | 4,250 | 4,400 | 0 | -150 |

### Table 7
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Gulf Coast

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 11/87 | 10/87 | 11/86 | 10/87 | 11/86 |
| Nonag. Wage & Salary | 18,500 | 19,100 | 18,450 | -600 | 50 |
| Mining | 650 | 650 | 850 | 0 | -200 |
| Construction | 850 | 1,100 | 1,150 | -250 | -300 |
| Manufacturing | 3,150 | 3,350 | 2,050 | -200 | 1,100 |
| Food & Kindred Prod. | 2,550 | 2,750 | 1,450 | -200 | 1,100 |
| All Other Mfg. | 600 | 600 | 600 | 0 | 0 |
| Trans. Comm. & Utilities | 1,300 | 1,300 | 1,300 | 0 | 0 |
| Trade | 3,400 | 3,400 | 3,400 | 0 | 0 |
| Wholesale | 500 | 500 | 500 | 0 | 0 |
| Retail | 2,900 | 2,900 | 2,900 | 0 | 0 |
| Finance-Ins. & R.E. | 550 | 600 | 650 | -50 | -100 |
| Services & Misc. | 3,100 | 3,150 | 3,300 | -50 | -200 |
| Government | 5,500 | 5,550 | 5,750 | -50 | -250 |
| Federal | 600 | 600 | 600 | 0 | 0 |
| State | 1,500 | 1,600 | 1,550 | -100 | -50 |
| Local | 3,400 | 3,350 | 3,600 | 50 | -200 |

### Table 8
### Alaska Hours and Earnings for Selected Industries [1/2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 11/87 | R/ 10/87 | 11/86 | P/ 11/87 | R/ 10/87 | 11/86 | P/ 11/87 | R/ 10/87 | 11/86 |
| Mining | 1,139.31 | 1,101.70 | 1,281.52 | 49.6 | 47.9 | 53.8 | 22.97 | 23.00 | 23.82 |
| Construction | 848.81 | 992.48 | 1,022.13 | 35.5 | 40.1 | 41.0 | 23.91 | 24.75 | 24.93 |
| Manufacturing | 494.06 | 501.65 | 511.04 | 40.2 | 39.5 | 39.1 | 12.29 | 12.70 | 13.07 |
| Food & Kindred Prod. | 331.18 | 296.65 | 256.40 | 39.1 | 35.4 | 28.3 | 8.47 | 8.38 | 9.06 |
| Lumber & Paper Prod | 665.09 | 739.54 | 698.41 | 43.3 | 46.6 | 53.6 | 15.36 | 15.87 | 13.03 |
| Trans., Comm. & Util. | 552.55 | 543.53 | 544.60 | 36.4 | 36.7 | 35.0 | 15.18 | 14.81 | 15.56 |
| Trade | 351.62 | 361.04 | 384.05 | 32.8 | 33.9 | 33.6 | 10.72 | 10.65 | 11.43 |
| Wholesale | 517.82 | 523.16 | 540.69 | 38.3 | 39.1 | 37.6 | 13.52 | 13.38 | 14.38 |
| Retail | 296.67 | 307.51 | 331.34 | 31.0 | 32.2 | 32.2 | 9.57 | 9.55 | 10.29 |
| Finance-Ins. & R.E. | 386.75 | 378.48 | 405.86 | 35.0 | 33.2 | 34.6 | 11.05 | 11.40 | 11.73 |

Benchmark March 1986
1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor
2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

While Fairbanks has suffered hard times, the activities of the military have helped dampen the impact of cuts elsewhere in the Interior area. While the military related civilian employment has not expanded as fast as the increase in military personnel the influx of people and the expectation of possible construction and other military related jobs appears to be keeping people around. School enrollment is up in the Fairbanks Northstar Borough, with an additional 400 since the official numbers have been released. This hidden strength of the economy has helped maintain the housing market, especially as compared to Anchorage and Juneau, during this economic recession.

The **Gulf Coast, Southeast, and Southwest** have all benefited by the strong fishing season. While Southern Southeast had a poor fishing season strong growth in the timber industry eased the pain and added to the growth in many other shore based communities. The Northern Region is still suffering from cutbacks in oil field exploration and development but if the oil companies proceed with their development plans employment growth may be a real possibility.

Juneau has suffered from the cutbacks in state government employment but has managed to replace some of the lost jobs with jobs in mining (Greens Creek Mining Venture) and are building a fish processing facility that will have 70 employees. While these ventures will not replace the loss in state government jobs in either numbers or dollar amounts, they will help diversify the economy and ease Juneau through their problems.

Declining wages and total personal income have accompanied falling employment (Figure 1). The largest decline in wages was in the construction industry. This decline in income has affected nearly all communities but Anchorage will no doubt feel the greatest impact as the regional center for much of the state.

## Conclusion

Even if oil prices decline to $15-$16 a barrel growth in Alaska's other basic industries—fishing, timber, mineral mining, tourism, and federal government, should keep the economy from falling much further. While it is a little early to conclude the end of the recession, the seasonally adjusted data indicate the bottom may have occurred (Figure 2). If oil prices remain at $18 a barrel the turn-around in this recent recession may already be underway.

Anchorage has been the hardest hit by the economic downturn but also has the greatest potential for growth with a recovery. Fairbanks has not felt the full impact of the recession because of the growth in the military and related construction activities. Juneau, as the capital city and heavily dependent on state government for its economic health, is actively developing alternative basic industries. The costal communities have benefited by a strong fishing and tourism season and a recovery in the forest products industry. As a result Alaska's recession has been primarily restricted to its largest communities.

Figure 1
Quarterly Index of Personal Income, Employment and Total Income

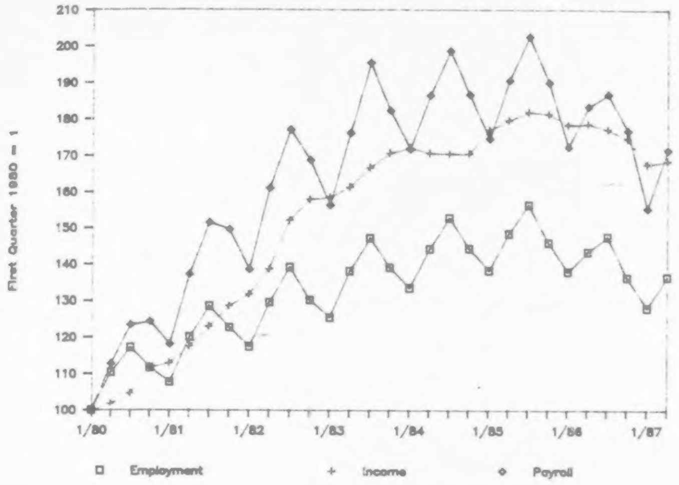
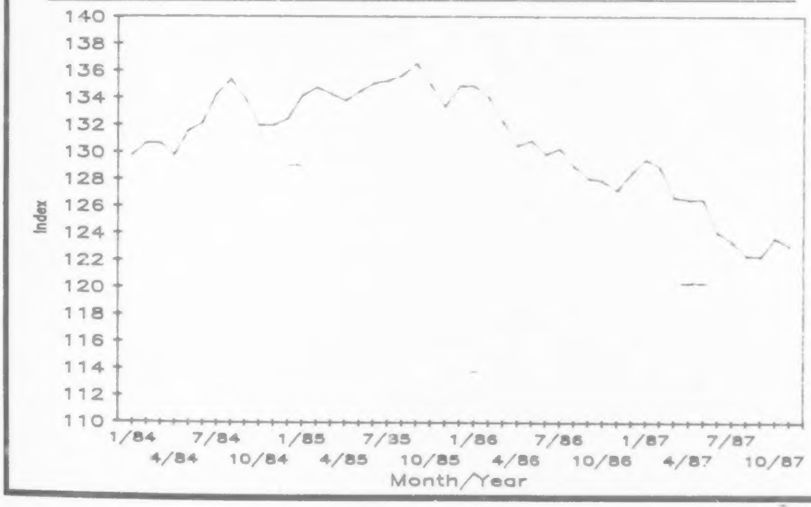


Figure 2
Composite Nonag. Employment Index
Seasonally Adjusted – 1984 to Present



## Table 9
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 11/87 | R/ 10/87 | 11/86 | P/ 11/87 | R/ 10/87 | 11/86 | P/ 11/87 | R/ 10/87 | 11/86 | P/ 11/87 | R/ 10/87 | 11/86 |
| Alaska Statewide | 246,724 | 249,222 | 247,167 | 23,694 | 22,885 | 26,167 | 9.6 | 9.2 | 10.6 | 223,030 | 226,337 | 221,000 |
| Anch.-MatSu Region | 131,429 | 131,734 | 133,444 | 11,394 | 10,920 | 12,152 | 8.7 | 8.3 | 9.1 | 120,035 | 120,814 | 121,292 |
| Anchorage Borough | 116,655 | 116,867 | 118,001 | 8,619 | 8,411 | 9,611 | 7.4 | 7.2 | 8.1 | 108,036 | 108,456 | 108,390 |
| MatSu Borough | 14,774 | 14,867 | 15,443 | 2,775 | 2,509 | 2,541 | 18.8 | 16.9 | 16.5 | 11,999 | 12,358 | 12,902 |
| Gulf Coast Region | 26,052 | 26,517 | 25,725 | 3,089 | 3,197 | 4,065 | 11.9 | 12.1 | 15.8 | 22,963 | 23,320 | 21,660 |
| Kenai Peninsula Bor | 16,157 | 16,466 | 15,994 | 2,456 | 2,552 | 3,070 | 15.2 | 15.5 | 19.2 | 13,701 | 13,914 | 12,924 |
| Kodiak Island Bor | 6,003 | 6,093 | 5,826 | 281 | 282 | 428 | 4.7 | 4.6 | 7.3 | 5,722 | 5,811 | 5,398 |
| Valdez-Cordova | 3,892 | 3,958 | 3,905 | 352 | 363 | 567 | 9.0 | 9.2 | 14.5 | 3,540 | 3,595 | 3,338 |
| Interior Region | 37,422 | 38,015 | 38,207 | 4,782 | 4,600 | 5,166 | 12.8 | 12.1 | 13.5 | 32,640 | 33,415 | 33,041 |
| Fairbanks North Star Br | 32,305 | 32,878 | 33,004 | 3,964 | 3,864 | 4,315 | 12.3 | 11.8 | 13.1 | 28,341 | 29,014 | 28,689 |
| Southeast Fairbanks | 2,229 | 2,235 | 2,278 | 326 | 287 | 352 | 14.6 | 12.8 | 15.5 | 1,903 | 1,948 | 1,926 |
| Yukon-Koyukuk | 2,888 | 2,902 | 2,925 | 492 | 449 | 499 | 17.0 | 15.5 | 17.1 | 2,396 | 2,453 | 2,426 |
| Northern Region | 7,928 | 7,898 | 7,887 | 755 | 559 | 784 | 9.5 | 7.1 | 9.9 | 7,173 | 7,339 | 7,103 |
| Nome | 3,062 | 3,024 | 3,027 | 337 | 237 | 329 | 11.0 | 7.8 | 10.9 | 2,725 | 2,787 | 2,698 |
| North Slope Borough | 2,778 | 2,806 | 2,765 | 139 | 105 | 151 | 5.0 | 3.7 | 5.5 | 2,639 | 2,701 | 2,614 |
| Northwest Arctic Bor | 2,088 | 2,068 | 2,095 | 279 | 217 | 304 | 13.4 | 10.5 | 14.5 | 1,809 | 1,851 | 1,791 |
| Southeast Region | 32,481 | 33,246 | 31,781 | 2,895 | 2,648 | 3,254 | 8.9 | 8.0 | 10.2 | 29,586 | 30,598 | 28,527 |
| Haines Borough | 911 | 910 | 880 | 112 | 84 | 110 | 12.3 | 9.2 | 12.5 | 799 | 826 | 770 |
| Juneau Borough | 14,039 | 14,422 | 13,795 | 928 | 860 | 1,152 | 6.6 | 6.0 | 8.4 | 13,111 | 13,562 | 12,643 |
| Ketchikan Gateway Br | 6,499 | 6,703 | 6,450 | 539 | 540 | 704 | 8.3 | 8.1 | 10.9 | 5,960 | 6,163 | 5,746 |
| Pr. of Wales-Outer Ktch | 2,355 | 2,411 | 2,299 | 336 | 323 | 352 | 14.3 | 13.4 | 15.3 | 2,019 | 2,088 | 1,947 |
| Sitka Borough | 3,904 | 3,957 | 3,705 | 379 | 312 | 306 | 9.7 | 7.9 | 8.3 | 3,525 | 3,645 | 3,399 |
| Skagway-Yakutat-Ang | 1,542 | 1,542 | 1,460 | 276 | 233 | 240 | 17.9 | 15.1 | 16.4 | 1,266 | 1,309 | 1,220 |
| Wrangell-Petersburg | 3,231 | 3,301 | 3,192 | 325 | 296 | 390 | 10.1 | 9.0 | 12.2 | 2,906 | 3,005 | 2,802 |
| Southwest Region | 11,412 | 11,812 | 10,123 | 779 | 961 | 746 | 6.8 | 8.1 | 7.4 | 10,633 | 10,851 | 9,377 |
| Aleutian Islands | 2,929 | 3,011 | 2,610 | 89 | 113 | 106 | 3.0 | 3.8 | 4.1 | 2,840 | 2,898 | 2,504 |
| Bethel | 4,564 | 4,744 | 4,075 | 344 | 438 | 354 | 7.5 | 9.2 | 8.7 | 4,220 | 4,306 | 3,721 |
| Bristol Bay Borough | 456 | 477 | 397 | 51 | 63 | 40 | 11.2 | 13.2 | 10.1 | 405 | 414 | 357 |
| Dillingham | 2,027 | 2,087 | 1,793 | 147 | 168 | 135 | 7.3 | 8.0 | 7.5 | 1,880 | 1,919 | 1,658 |
| Wade Hampton | 1,436 | 1,493 | 1,248 | 148 | 179 | 111 | 10.3 | 12.0 | 8.9 | 1,288 | 1,314 | 1,137 |

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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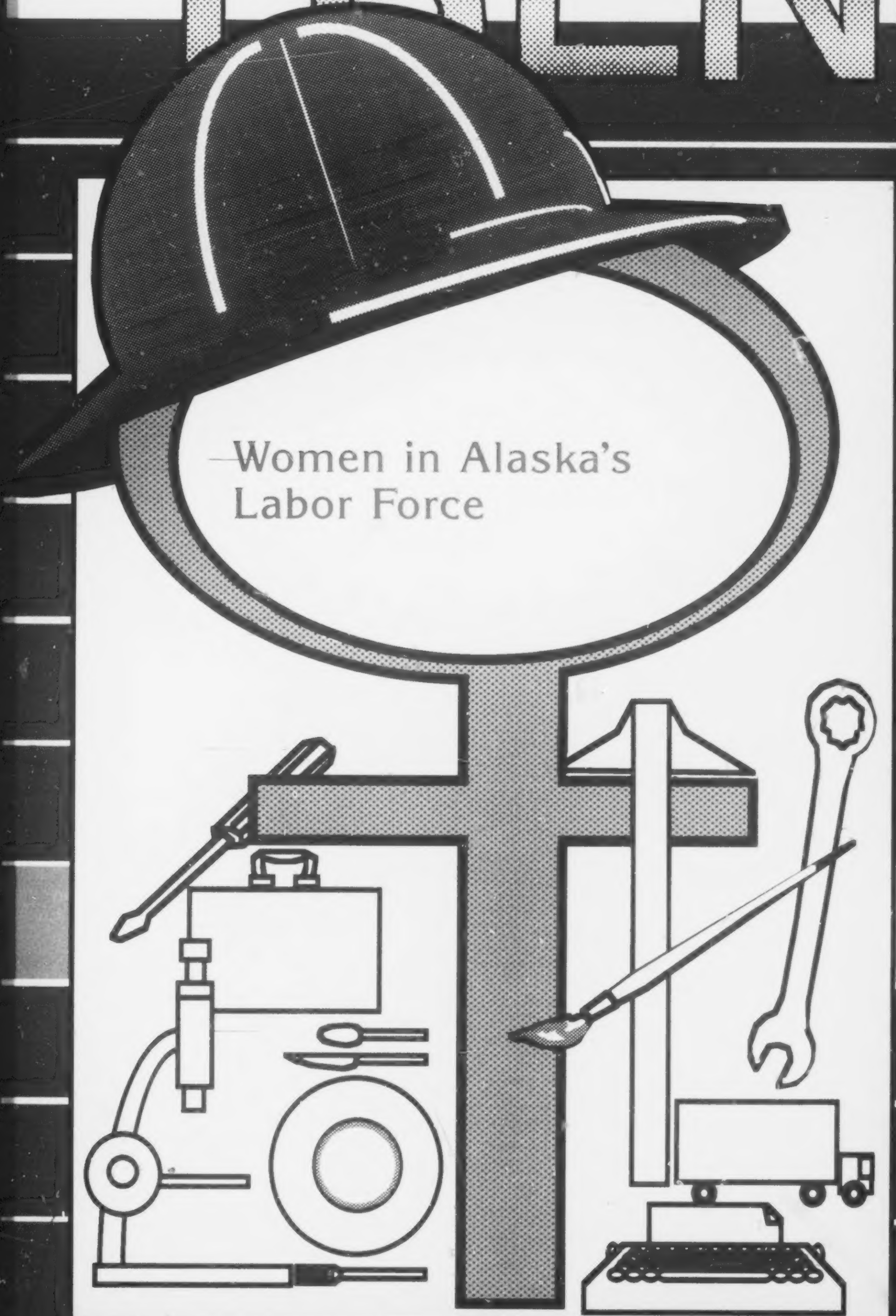

Women in Alaska's Labor Force

MatSu's Economic Scene

The Kenai Peninsula Borough: An Economic Assessment

Alaska's Employment Scene

ALASKA DEPARTMENT OF LABOR STEVE COWPER, GOVERNOR

# Alaska Economic Trends

*Steve Cowper*, Governor, State of Alaska

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1986.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

*Alaska Economic Trends* is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact Dr. Edward W. Eboch, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.

# Women in Alaska's Labor Force

By John Boucher

While monthly estimates of employment and unemployment are a regular feature of *Alaska Economic Trends*, detailed characteristic data about cross-sections of Alaska's labor force are not available from the monthly estimates. For example the monthly estimates don't tell us anything about how many females were unemployed during the month. Women are not the only group in the Alaskan labor force about which there is a dearth of information. The same is true for other special worker groups such as the elderly, veterans, Alaskan Natives, and youth. In this article, we will examine the sources of labor force data that are available on women in Alaska's labor force.

## 1980 Census

The most comprehensive data source on women in Alaska's labor force is from the 1980 Census of Population. Unfortunately, so much has changed in Alaska during the past seven years that most of the information available from the Census is outdated. Alaska's economy has been far from static in the seven years since 1980. Alaska first went through a tremendous growth in employment opportunities in the early 80s, then a recession during the past two years which has rocked even traditionally stable industries like government. This doesn't consider the continuing rapid evolution of women's role in todays labor force. Because of these factors as well as the readily availability of 1980 Census data, this article will concentrate on more recent data sources than the 1980 Census of Population. For a rundown of female labor force data available from the 1980 Census, consult the Alaska Department of Labor, Research and Analysis, Demographics Unit.

**The labor force participation rate for females in Alaska was the third highest in the nation.**

## Current Population Survey

The Current Population Survey (CPS) is a monthly nationwide survey of 60,000 households conducted by the Bureau of Census for the Bureau of Labor Statistics. Data collected are based on labor force status as of the 12th of the month. In Alaska, approximately 1,170 households representing nine of Alaska's 23 census areas are assigned to be surveyed each month.[1] The data published in the following tables are summary data from the 1986 Current Population Survey.

Since the data are survey based, none of the unemployment rates should be considered exact. All of the measurements have associated error rates. A rule of thumb when comparing these statistics is that error ranges get larger as the group being measured gets smaller. For example, the CPS unemployment rate for all Alaskan females in 1986 was 9.1% and the range is from 7.9% to 10.4% unemployed. However, for the subset of Alaskan females aged 16 to 19 the unemployment rate was 22.6%, but the range from about 17% to 28%.

Table 1 compares Alaska with the other 49 states and the District of Columbia in terms of overall female participation in the labor force and the unemployment rate for females. The comparison revealed mixed messages about the labor market for women in Alaska. On one hand the unemployment rate for females in Alaska was among the ten highest in the nation, at 9.1%. By contrast the labor force participation rate for females in Alaska was the third highest in the nation. This indicated that Alaskan women are active in the labor force to a greater extent than almost anywhere else in the nation.

---

[1] In any given month about 70% of all of the households assigned are actually surveyed in the CPS. Of the nine census areas which are surveyed, five of those represent the data for their own area while the other four represent the data for their own area as well as data for the 14 census areas which are not surveyed.

### Table 1
### Female Unemployment Ranked by State—1986 Annual Averages
### With Participation Rate and Rank

| Rank | | Female Population (thous) | Female Labor Force (thous) | Female Employed (thous) | Female Unemployed (thous) | Female Unemployment Rate | Female Participation Rate | Part. Rate Rank |
|---|---|---|---|---|---|---|---|---|
| 1 | Louisiana | 1,725 | 875 | 755 | 120 | 13.7% | 50.7% | 47 |
| 2 | Mississippi | 1,004 | 517 | 449 | 68 | 13.1 | 51.5 | 45 |
| 3 | Alabama | 1,618 | 862 | 771 | 91 | 10.6 | 53.3 | 42 |
| 4 | West Virginia | 775 | 307 | 277 | 30 | 9.9 | 39.6 | 51 |
| 5 | Arkansas | 938 | 480 | 434 | 46 | 9.6 | 51.2 | 46 |
| 6 | Kentucky | 1,457 | 715 | 648 | 67 | 9.4 | 49.1 | 50 |
| 7 | **ALASKA** | 176 | 114 | 104 | 10 | 9.1 | 64.9 | 2 |
| 7 | Tennessee | 1,945 | 1,057 | 961 | 96 | 9.1 | 54.4 | 38 |
| 9 | Michigan | 3,584 | 1,914 | 1,741 | 173 | 9.0 | 53.4 | 41 |
| 10 | Texas | 6,172 | 3,515 | 3,209 | 307 | 8.7 | 57.0 | 28 |
| 10 | Washington | 1,693 | 962 | 879 | 83 | 8.7 | 56.8 | 30 |
| 12 | Wyoming | 179 | 107 | 98 | 9 | 8.6 | 59.6 | 12 |
| 13 | Oregon | 1,051 | 611 | 559 | 52 | 8.5 | 58.1 | 21 |
| 13 | New Mexico | 533 | 281 | 258 | 24 | 8.5 | 52.8 | 43 |
| 15 | Illinois | 4,564 | 2,498 | 2,297 | 201 | 8.0 | 54.7 | 37 |
| 16 | South Carolina | 1,320 | 738 | 681 | 57 | 7.7 | 55.9 | 34 |
| 17 | Oklahoma | 1,278 | 721 | 666 | 54 | 7.6 | 56.4 | 32 |
| 17 | Idaho | 358 | 202 | 187 | 15 | 7.6 | 56.6 | 31 |
| 17 | District of Columbia | 264 | 165 | 153 | 13 | 7.6 | 62.7 | 5 |
| 17 | Indiana | 2,160 | 1,243 | 1,149 | 94 | 7.6 | 57.6 | 24 |
| 17 | Georgia | 2,404 | 1,402 | 1,296 | 106 | 7.6 | 58.3 | 19 |
| 22 | Montana | 308 | 178 | 165 | 13 | 7.3 | 57.8 | 24 |
| 22 | Ohio | 4,244 | 2,296 | 2,127 | 169 | 7.3 | 54.1 | 40 |
| 24 | Iowa | 1,108 | 631 | 586 | 45 | 7.2 | 57.0 | 28 |
| 25 | Arizona | 1,272 | 700 | 650 | 50 | 7.1 | 55.0 | 35 |
| 26 | Colorado | 1,273 | 774 | 721 | 53 | 6.9 | 60.8 | 7 |
| 27 | Utah | 545 | 321 | 299 | 22 | 6.8 | 58.9 | 16 |
| 28 | California | 10,328 | 5,801 | 5,413 | 388 | 6.7 | 56.2 | 33 |
| 28 | Wisconsin | 1,833 | 1,049 | 979 | 70 | 6.7 | 57.2 | 27 |
| 30 | Pennsylvania | 4,899 | 2,479 | 2,324 | 156 | 6.3 | 50.6 | 48 |
| 31 | North Dakota | 247 | 145 | 136 | 9 | 6.2 | 58.9 | 16 |
| 32 | Missouri | 1,980 | 1,135 | 1,066 | 69 | 6.1 | 57.3 | 26 |
| 33 | North Carolina | 2,531 | 1,471 | 1,382 | 89 | 6.0 | 58.1 | 21 |
| 33 | Florida | 4,875 | 2,546 | 2,395 | 152 | 6.0 | 52.2 | 44 |
| 35 | Kansas | 944 | 549 | 517 | 32 | 5.9 | 58.2 | 20 |
| 36 | New York | 7,359 | 3,722 | 3,508 | 214 | 5.8 | 50.6 | 48 |
| 36 | Nevada | 386 | 251 | 237 | 15 | 5.8 | 65.1 | 1 |
| 38 | Virginia | 2,254 | 1,306 | 1,232 | 74 | 5.7 | 57.9 | 23 |
| 39 | Maine | 463 | 251 | 237 | 14 | 5.6 | 54.2 | 39 |
| 40 | New Jersey | 3,112 | 1,710 | 1,616 | 95 | 5.5 | 54.9 | 36 |
| 41 | Minnesota | 1,610 | 989 | 936 | 53 | 5.3 | 61.4 | 6 |
| 41 | Maryland | 1,801 | 1,095 | 1,037 | 58 | 5.3 | 60.8 | 7 |
| 43 | Vermont | 212 | 134 | 127 | 7 | 5.2 | 63.2 | 3 |
| 44 | Nebraska | 607 | 367 | 348 | 19 | 5.1 | 60.5 | 10 |
| 45 | South Dakota | 259 | 154 | 147 | 8 | 4.9 | 59.5 | 13 |
| 46 | Hawaii | 387 | 228 | 217 | 11 | 4.8 | 59.0 | 15 |
| 47 | Delaware | 254 | 150 | 144 | 6 | 4.3 | 59.1 | 14 |
| 48 | Rhode Island | 412 | 247 | 237 | 10 | 4.2 | 59.9 | 11 |
| 49 | Connecticut | 1,307 | 794 | 762 | 32 | 4.1 | 60.8 | 7 |
| 50 | Massachusetts | 2,423 | 1,419 | 1,366 | 53 | 3.7 | 58.6 | 18 |
| 51 | New Hampshire | 400 | 253 | 244 | 8 | 3.3 | 63.2 | 3 |

Source: Geographic Profile of Employment and Unemployment, 1986.

Given the high unemployment rate for the overall population in 1986, (10.9%), Alaska's relatively high national ranking for female unemployment is not too surprising. What is most remarkable about the 1986 unemployment rate for females in Alaska is that the female unemployment rate was significantly below both the statewide average and the male unemployment rate. (see Table 2) West Virginia was the only other state in the nation where females had a much lower unemployment rate than males. Alaska's relatively low female unemployment rate in 1986 seems to be unique though, because West Virginia has the lowest participation rate for females in the nation (39.6%). In the other states with high female unemployment, women tend to participate in the labor force to a much lesser degree than Alaskan women.

Why would female unemployment be much lower than male unemployment in Alaska during 1986? A tremendous amount of construction and oil industry unemployment occurred in 1986. These two industries are dominated by occupations in which the vast majority of the job holders are males. The comparatively higher unemployment rate for males is one effect of the downturn in the oil and construction industries.

However, this is not a new phenomenon for Alaska, in each of the years since 1980 female unemployment has tended to be lower than male unemployment (Table 3). This is due to the clustering of females in occupations which tend to be less seasonal in nature than some male occupational clusters, particularly those related to construction.

The reasons behind Alaska's high participation rate for females in the labor force are more difficult to discern. The major factor is that Alaska has a much younger population. Participation rates for females are much higher among the age group from 20-54 than in the 55+ age group. In Alaska 79% of the total female population is in this age group while nationally 63% of the female population falls into that age group (Table 4).

It is interesting to note that as a group the females in Alaska in their prime working years (20-54) have a participation rate that is only slightly higher than the national average. That would dispel the notion that the higher participation rate statewide is caused by females having to work as second income earners in Alaska because of the high cost of living.

Even though the participation rate for females aged 20-54 in Alaska is similar to the national average, different work force patterns are evident from the breakdown of the female labor force by age. It appears that in Alaska women are more likely to stay active in the labor force into their 40s and 50s than they are in the rest of the nation. Why Alaskan women stay active in the labor force longer in Alaska is a matter of speculation, but one reason could be that females are working longer in anticipation of relocation elsewhere once they reach retirement age. This conclusion might be reached from the fact that a significant number of Alaskans appear to prefer to spend their retirement years out of the state.

### Table 2
### Female Unemployment Ranked by State—1986 With Total and Male Unemployment Rates

| | | Female Unemployment Rate | Total Unemployment Rate | Male Unemployment Rate |
|---|---|---|---|---|
| 1 | Louisiana | 13.7% | 13.1% | 12.7% |
| 2 | Mississippi | 13.1 | 11.7 | 10.6 |
| 3 | Alabama | 10.6 | 9.8 | 9.2 |
| 4 | West Virginia | 9.9 | 11.8 | 13.2 |
| 5 | Arkansas | 9.6 | 8.7 | 8.1 |
| 6 | Kentucky | 9.4 | 9.3 | 9.1 |
| 7 | **ALASKA** | 9.1 | 10.9 | 12.1 |
| 7 | Tennessee | 9.1 | 8.0 | 7.2 |
| 9 | Michigan | 9.0 | 8.8 | 8.6 |
| 10 | Texas | 8.7 | 8.9 | 9.0 |
| 10 | Washington | 8.7 | 8.2 | 7.8 |
| 12 | Wyoming | 8.6 | 9.0 | 9.2 |
| 13 | Oregon | 8.5 | 8.5 | 8.4 |
| 13 | New Mexico | 8.5 | 9.2 | 9.7 |
| 15 | Illinois | 8.0 | 8.1 | 8.2 |
| 16 | South Carolina | 7.7 | 6.2 | 5.0 |
| 17 | Oklahoma | 7.6 | 8.2 | 8.8 |
| 17 | Idaho | 7.6 | 8.7 | 9.6 |
| 17 | District of Columbia | 7.6 | 7.7 | 7.8 |
| 17 | Indiana | 7.6 | 6.7 | 6.0 |
| 17 | Georgia | 7.6 | 5.9 | 4.5 |
| 22 | Montana | 7.3 | 8.1 | 8.7 |
| 22 | Ohio | 7.3 | 8.1 | 8.7 |
| 24 | Iowa | 7.2 | 7.0 | 6.9 |
| 25 | Arizona | 7.1 | 6.9 | 6.8 |
| 26 | Colorado | 6.9 | 7.4 | 7.9 |
| 27 | Utah | 6.8 | 6.0 | 5.4 |
| 28 | California | 6.7 | 6.7 | 6.7 |
| 28 | Wisconsin | 6.7 | 7.0 | 7.4 |
| 30 | Pennsylvania | 6.3 | 6.8 | 7.3 |
| 31 | North Dakota | 6.2 | 6.3 | 6.4 |
| 32 | Missouri | 6.1 | 6.1 | 6.1 |
| 33 | North Carolina | 6.0 | 5.3 | 4.7 |
| 33 | Florida | 6.0 | 5.7 | 5.5 |
| 35 | Kansas | 5.9 | 5.4 | 5.1 |
| 36 | New York | 5.8 | 6.3 | 6.7 |
| 36 | Nevada | 5.8 | 6.0 | 6.2 |
| 38 | Virginia | 5.7 | 5.0 | 4.5 |
| 39 | Maine | 5.6 | 5.3 | 5.1 |
| 40 | New Jersey | 5.5 | 5.0 | 4.6 |
| 41 | Minnesota | 5.3 | 5.3 | 5.3 |
| 41 | Maryland | 5.3 | 4.5 | 3.8 |
| 43 | Vermont | 5.2 | 4.7 | 4.2 |
| 44 | Nebraska | 5.1 | 5.0 | 5.0 |
| 45 | South Dakota | 4.9 | 4.7 | 4.6 |
| 46 | Hawaii | 4.8 | 4.8 | 4.9 |
| 47 | Delaware | 4.3 | 4.3 | 4.4 |
| 48 | Rhode Island | 4.2 | 4.0 | 3.9 |
| 49 | Connecticut | 4.1 | 3.8 | 3.5 |
| 50 | Massachusetts | 3.7 | 3.8 | 3.9 |
| 51 | New Hampshire | 3.3 | 2.8 | 2.3 |

Source: Geographic Profile of Employment and Unemployment, 1986

## Unemployment Insurance Claims Data

Another source of data available which can shed light on the female labor force situation is unemployment claims data. Tables 5-11 are developed from the Claimant Characteristics tape, a special compilation of information on all claimants who received unemployment compensation in 1986. Occupations are listed according to classifications in the Dictionary of Occupational titles or DOT codes. Ethnic information is based on information voluntarily submitted at the initial time of filing. Annual average income refers to the claimants income in the base benefit period, which is defined as the first four quarters of the five most recent quarters.

From Tables 5-11 we can develop a profile which can characterize the typical female who claimed unemployment in Alaska in 1986. If a generic description were available, the typical female claiming unemployment in Alaska would be charac-

Table 3
Female, Male & Total Unemployment Rates
For Alaska 1980-1986

| | Female Unemployment Rate | Total Unemployment Rate | Male Unemployment Rate |
|---|---|---|---|
| 1980[2] | 7.8% | 9.5% | 10.7% |
| 1981 | 7.7 | 9.3 | 10.4 |
| 1982 | 8.5 | 9.9 | 11.0 |
| 1983 | 8.3 | 10.3 | 11.4 |
| 1984 | 8.7 | 10.0 | 11.1 |
| 1985 | 8.0 | 9.7 | 10.9 |
| 1986 | 9.1 | 10.9 | 12.1 |

[2] 1980 Census

Source: Geographic Profile of Employment and Unemployment, 1981, 1982, 1983, 1984, 1985, 1986.

Table 4
Employment status of Women in 1986 by Age
Alaska & The U.S.

| **ALASKA** | Female Population (thous) | Percent of Total Population | Female Participation Rate | Female Labor Force (thous) | Female Employed (thous) | Female Unemployed (thous) | Female Unemployment Rate |
|---|---|---|---|---|---|---|---|
| Age 16 + | 176 | 100.0% | 64.9% | 114 | 104 | 10 | 9.1% |
| Age 16-19 | 14 | 8.0 | 45.3 | 6 | 5 | 1 | 22.6 |
| Age 20 + | 162 | 92.0 | 66.6 | 108 | 99 | 9 | 8.4 |
| Age 20-24 | 22 | 12.5 | 68.6 | 15 | 13 | 2 | 12.5 |
| Age 25-34 | 54 | 30.7 | 63.2 | 37 | 33 | 3 | 9.3 |
| Age 35-44 | 42 | 23.9 | 78.1 | 33 | 31 | 2 | 7.4 |
| Age 45-54 | 20 | 11.4 | 75.3 | 15 | 14 | 1 | 6.6 |
| Age 20-54 | 138 | 78.4 | 72.5 | 100 | 91 | 8 | |
| Age 55-64 | 13 | 7.4 | 48.1 | 6 | 6 | * | 4.0 |
| Age 65 + | 10 | 5.7 | 12.4 | 1 | 1 | * | 1.2 |

| **UNITED STATES** | Female Population (thous) | Percent of Total Population | Female Participation Rate | Female Labor Force (thous) | Female Employed (thous) | Female Unemployed (thous) | Female Unemployment Rate |
|---|---|---|---|---|---|---|---|
| Age 16 + | 94,789 | 100.0% | 55.3% | 52,413 | 48,706 | 3,707 | 7.1% |
| Age 16-19 | 7,221 | 7.6 | 53.0 | 3,824 | 3,149 | 675 | 17.6 |
| Age 20 + | 87,568 | 92.4 | 5.5 | 48,590 | 45,555 | 3,032 | 6.2 |
| Age 20-24 | 10,072 | 10.6 | 72.4 | 7,293 | 6,540 | 752 | 10.3 |
| Age 25-34 | 21,233 | 22.4 | 71.6 | 15,208 | 14,109 | 1,099 | 7.2 |
| Age 35-44 | 16,692 | 17.6 | 73.1 | 12,204 | 11,595 | 609 | 5.0 |
| Age 45-54 | 11,746 | 12.4 | 65.9 | 7,746 | 7,395 | 350 | 4.5 |
| Age 20-54 | 59,743 | 63.0 | 71.1 | 42,451 | 39,639 | 2,810 | 6.6 |
| Age 55-64 | 11,675 | 12.3 | 42.3 | 4,940 | 4,751 | 189 | 3.8 |
| Age 65 + | 16,150 | 17.0 | 7.4 | 1,199 | 1,165 | 33 | 2.8 |

Source: Current Population Survey, unpublished data.

terized like this; She would be white, between the ages of 25 and 34, have no dependents and her annual average income would be below $10,000. Her last place of work would have been in a service or retail establishment where she worked in a clerical capacity.

In addition to defining who a typical unemployed female in Alaska might be, Tables 5-11 can help identify where pockets of unemployed females are in Alaska. By inference then one might assume that where there are pockets of unemployment, those are the areas or characteristics which best describe the employed female population as well.

For example in Table 5, UI Claims by Industry, it is apparent that services and trade are industries where females are concentrated. More than 55% of all unemployment claims by females in 1986 were in these two industries. After these two industries, public administration (government) and finance-insurance and real estate combined to make up an additional 20% of the unemployed females in Alaska. At the other end of the spectrum less than 2% of the unemployed females last worked in the mining industry.

**The typical female claiming unemployment in Alaska would be characterized as white, between the ages of 25 and 34, have no dependents and her annual average income would be below $10,000.**

Table 5
UI Claimants by Industry

| | Female | Total | Female % of Total | % of Female |
|---|---|---|---|---|
| Ag-For-Fish | 88 | 372 | 23.7% | 0.4% |
| Mining | 401 | 3,855 | 10.4 | 1.7 |
| Oil & Gas | 359 | 3,384 | 10.6 | 1.5 |
| Other Mining | 42 | 471 | 8.9 | 0.2 |
| Construction | 1,166 | 17,112 | 6.8 | 4.8 |
| Manufacturing | 1,581 | 6,312 | 25.0 | 6.5 |
| Food & Kindred Prod. | 1,091 | 3,483 | 31.3 | 4.5 |
| Lumber & Wood Prod. | 120 | 1,287 | 9.3 | 0.5 |
| Paper Prod. | 71 | 501 | 14.2 | 0.3 |
| Other Manufacturing | 299 | 1,041 | 28.7 | 1.2 |
| Trans. Comm., & Utils. | 1,726 | 5,883 | 29.3 | 7.1 |
| Trade | 5,926 | 12,680 | 46.7 | 24.5 |
| Wholesale Trade | 683 | 2,226 | 30.7 | 2.8 |
| Retail Trade | 5,243 | 10,454 | 50.2 | 21.7 |
| F.I.R.E. | 1,989 | 2,920 | 68.1 | 8.2 |
| Services | 7,683 | 14,364 | 53.5 | 31.8 |
| Public Administration | 3,372 | 8,275 | 40.7 | 14.0 |
| Unclassified | 216 | 622 | 34.7 | 0.9 |
| Totals | 24,148 | 72,395 | 33.4 | 100.0 |

Source: Claimant Characteristics Tape, 1986. Alaska Department of Labor, Research and Analysis, Reports Unit.

Table 6
UI Claimants By Number of Dependents

| | Female | Total | Female % of Total | % of Female |
|---|---|---|---|---|
| 0 Dependents | 14,764 | 45,999 | 32.1% | 61.1% |
| 1 Dependent | 4,551 | 11,046 | 41.2 | 18.8 |
| 2 Dependents | 3,259 | 9,574 | 34.0 | 13.5 |
| 3 Dependents | 1,560 | 5,706 | 27.3 | 6.5 |
| 4+ Dependents | 14 | 70 | 20.0 | 0.1 |
| Total | 24,148 | 72,395 | 33.4 | 100.0 |

Source: Claimant Characteristics Tape, 1986. Alaska Department of Labor, Research and Analysis, Reports Unit.

Table 7
Claimants By Ethnicity

| | Female | Total | Female % of Total | % of Female |
|---|---|---|---|---|
| White | 18,727 | 57,851 | 32.4% | 77.6% |
| Alaskan Native/American Indian | 3,092 | 8,763 | 35.3 | 12.8 |
| Black | 975 | 2,197 | 44.4 | 4.0 |
| Hispanic | 422 | 1,229 | 34.3 | 1.7 |
| Asian & Pacific Islanders | 733 | 1,795 | 40.8 | 3.0 |
| No Information | 199 | 560 | 35.5 | 0.8 |
| Total | 24,148 | 72,395 | 33.4 | 100.0 |

Source: Claimant Characteristics Tape, 1986. Alaska Department of Labor, Research and Analysis, Reports Unit.

### Table 8
### UI Claimants By Age

| | Female | Total | Female % of Total | % of Female |
|---|---|---|---|---|
| Less than 21 | 1.725 | 4,122 | 41.8% | 7.1% |
| 21-24 | 3.678 | 9.692 | 37.9 | 15.2 |
| 25-34 | 9.947 | 29,425 | 33.8 | 41.2 |
| 35-44 | 5,299 | 16,905 | 31.3 | 21.9 |
| 45-54 | 2.268 | 7,957 | 28.5 | 9.4 |
| 55-64 | 924 | 3.403 | 27.2 | 3.8 |
| 65 and over | 307 | 891 | 34.5 | 1.3 |
| Total | 24.148 | 72.395 | 33.4 | 100.0 |

Source: Claimant Characteristics Tape. 1986. Alaska Department of Labor, Research and Analysis, Reports Unit.

### Table 9
### UI Claimants By Income

| | Female | Total | Female % of Total | % of Female |
|---|---|---|---|---|
| 0-999 | 2 | 5 | 40.0% | 0.0% |
| 1,000-9,999 | 9.720 | 20,956 | 46.4 | 40.3 |
| 10,000-19,999 | 8,804 | 22,558 | 39.0 | 36.5 |
| 20,000-29,999 | 3.867 | 13,418 | 28.8 | 16.0 |
| 30,000-39,999 | 1,192 | 7,311 | 16.3 | 4.9 |
| 40,000-49,999 | 379 | 3.978 | 9.5 | 1.6 |
| 50,000-59,999 | 126 | 2,140 | 5.9 | 0.5 |
| 60,000-69,999 | 39 | 1,163 | 3.4 | 0.2 |
| 70,000-79,999 | 16 | 554 | 2.9 | 0.1 |
| 80,000-89,999 | 1 | 205 | 0.5 | 0.0 |
| 90,000 and over | 2 | 107 | 1.9 | 0.0 |
| Total | 24,148 | 72,395 | 33.4 | 100.0 |

Source: Claimant Characteristics Tape. 1986. Alaska Department of Labor, Research and Analysis, Reports Unit.

### Table 10
### UI Claimants by Occupation

| | Female | Total | Female % of Total | % of Female |
|---|---|---|---|---|
| Agriculture, Fishing & Forestry | 185 | 1,392 | 13.3% | 0.8% |
| Benchwork | 105 | 381 | 27.6 | 0.4 |
| Clerical & Sales | 11,536 | 14,563 | 79.2 | 47.8 |
| Machine Trades | 113 | 3,504 | 3.2 | 0.5 |
| Processing | 814 | 2,296 | 35.5 | 3.4 |
| Professional, Technical & Managerial | 4,963 | 11,205 | 44.3 | 20.6 |
| Services | 4,891 | 8,341 | 58.6 | 20.3 |
| Structural Work | 636 | 22,011 | 2.9 | 2.6 |
| Misc. & Unknown | 905 | 8,702 | 10.4 | 3.7 |
| Total | 24.148 | 72,395 | 33.4 | 100.0 |

Source: Claimant Characteristics Tape. 1986. Alaska Department of Labor, Research and Analysis, Reports Unit.

## Conclusions

While data is somewhat sparse on the current status of women in Alaska's labor force, the available data does point to several characteristics of females in the current labor market. Although female unemployment in the state is high, females are less likely to become unemployed than males in Alaska. This is predominantly due to the clustering of females in occupations and industries which tend not to experience regular periods of unemployment such as construction.

**While Alaskan females may have opportunities not as available in other parts of the country, an equal position for females in Alaska's labor force has yet to be achieved.**

Alaskan women participate in the labor force to a much greater degree than almost anywhere else in the nation, however that is a function of the younger average age of Alaskan women which translates into more Alaskan females in their prime working years. Occupational clustering in services, clerical and sales occupations, which tend to be lower paying, is apparent from unemployment insurance claims data. In short, while Alaskan females may have opportunities not as available in other parts of the country, an equal position for females in Alaska's labor force has yet to be achieved.

Table 11
UI Claimants By Census Area

| | Female | Total | Female % of Total | % of Female |
|---|---|---|---|---|
| Aleutian Islands | 89 | 192 | 46.4% | 0.4% |
| Anchorage Borough | 6,628 | 19,857 | 33.4 | 27.4 |
| Bethel | 262 | 868 | 30.2 | 1.1 |
| Bristol Bay Borough | 28 | 74 | 37.8 | 0.1 |
| Dillingham | 119 | 339 | 35.1 | 0.5 |
| Fairbanks North Star Borough | 2,668 | 8,634 | 30.9 | 11.0 |
| Haines Borough | 84 | 262 | 32.1 | 0.3 |
| Juneau Borough | 976 | 2,605 | 37.5 | 4.0 |
| Kenai Peninsula Borough | 1,795 | 5,711 | 31.4 | 7.4 |
| Ketchikan Gateway Borough | 583 | 1,605 | 36.3 | 2.4 |
| Kodiak Island Borough | 376 | 1,039 | 36.2 | 1.6 |
| MatSu Borough | 1,543 | 5,270 | 29.3 | 6.4 |
| Nome | 193 | 763 | 25.3 | 0.8 |
| North Slope Borough | 102 | 366 | 27.9 | 0.4 |
| Northwest Arctic Borough | 180 | 582 | 30.9 | 0.7 |
| Prince of Wales-Outer Ketchikan | 298 | 855 | 34.9 | 1.2 |
| Sitka Borough | 336 | 979 | 34.3 | 1.4 |
| Skagway-Yakutat-Angoon | 210 | 621 | 33.8 | 0.9 |
| Southeast Fairbanks | 192 | 633 | 30.3 | 0.8 |
| Valdez-Cordova | 311 | 900 | 34.6 | 1.3 |
| Wade Hampton | 102 | 392 | 26.0 | 0.4 |
| Wrangell-Petersburg | 257 | 901 | 28.5 | 1.1 |
| Yukon-Koyukuk | 316 | 1,027 | 30.8 | 1.3 |
| Out of State | 6,500 | 17,920 | 36.3 | 26.9 |
| Total | 24,148 | 72,395 | 33.4 | 100.0 |

Source: Claimant Characteristics Tape, 1986, Alaska Department of Labor, Research and Analysis, Reports Unit.

# MatSu's Economic Scene

**By Greg Huff**

Descriptions of MatSu's economy in 1987 were often accompanied by bad news of foreclosures, bankruptcies, smaller budgets, bank closings, and job losses. As 1988 arrived, economy watchers were beginning to formulate a more optimistic outlook for MatSu's economy. The new optimism is founded in the belief that MatSu's economy is in a state of stabilization and that the economy will soon turn around. The big question is whether this new optimism is warranted given current economic data, and if so what does it mean for the MatSu economy in the near future?

This article examines MatSu's job statistics and other economic indicators to see if MatSu's economy is in a stage of stabilization; where loss of businesses, homes, and jobs will subside and then be followed by a period of moderate growth. But before we gaze into the future a review of recent historical data is needed to put the outlook into perspective.

## Review 1980-1985

MatSu's economy began the 1980s with a surge of population growth that was ignited by in-migration. Most of the population gains came from the movement of Anchorage residents to the valley and in-migration from the lower 48. In fact, over four-fifths of the population gain was due to newly arrived residents. According to Research and Analysis statistics the total number of new residents to the borough from the lower 48 was second only to Anchorage and the in-migration rate from locations elsewhere in the state was the highest in the state. In addition to the population growth caused by in-migration, MatSu's high birth rate added a significant number of young people to the local population.

Most of the former Anchorage residents came to the valley to take advantage of lower home prices and property taxes. The cost of a single family residence in Anchorage was an average of 27% greater than a comparable unit in the MatSu valley. This was attractive to many Anchorage workers despite the higher transportation costs associated with the extended commuter trip.

The population boom in the Mat-Su Borough soon translated into employment growth. From 1980-1985 MatSu employment increased 114% or 16.5% annually, making it the fastest growing region in the state. This growth rate was nearly 3.5 times greater than the statewide average and 2.8 times greater than Anchorage's growth rate.

Most of MatSu's employment gains were in industries constructing housing or providing goods and services to the rapidly growing population. Construction employment grew 450% from 1980 to 1984, that represents over 800 jobs or approximately 24% of the total job growth during that time. Construction of residential units began to slow in 1985 and construction employment began to fall, but jobs in the goods and services industry continued to expand. From 1980 to 1985, the trade industry grew by over 134% (1,000 jobs) and services increased by 145% (670 jobs). Utilities and other service oriented industries such as banking also contributed to the number of new jobs in the MatSu Borough.

Local government employment grew in response to population. The education component of local government in particular grew in response to the rapid rise in school enrollment which accompanied the population surge. From the fall of 1980 to the fall of 1985 student enrollment in the district increased from 4,413 students to 8,782 students, an increase of 99%. Meanwhile school district employment increased by 70% to 1,230 jobs.

## MatSu 1986-1987

Although most of the rest of the state had already experienced total employment declines by January 1986, the MatSu region continued to grow through the first quarter of 1986 (Figure 1). During that quarter MatSu employment increased 2.3% while Anchorage employment fell 1.3%. The growth in early 1986 was a result of increases in local government employment combined with smaller gains in services, state government, finance, insurance, telephone communications and wholesale trade. Increases in these secondary industries offset large employment losses in the construction industry and minor losses in manufacturing.

The increase in school staff from 1980 to 1985 was in response to an increase in school enrollment, but by fall 1986 enrollment was up less than 200 students, substantially less than the 750 student increase the previous year. As the impacts of a declining economy spread, more families were forced to move out of the area in search of jobs. By the next fall school enrollment had dropped by over 380 students, a 4.3 percent decline.

By the summer of 1986 the economic and population indicators showed all too clearly that an economic slowdown was underway (Figure 2). Not only was employment falling and school enrollment waning, the commuter traffic on the Glenn Highway between MatSu and Anchorage began to decline after growing almost 20% annually since 1980, the number of telephone hookups also fell beginning in 1986 after four years of double digit growth (Figure 2) and construction activity declined by nearly 140% from 1985 levels.

About the only growth statistic that could be found in the borough was the community college enrollment figures which indicated an increase in students from the 1987 spring semester to the 1987 fall semester by several hundred students. School officials also expect an increase in students for the spring quarter of 1988 (January 1988). This statistic may also be an indication of a bad economy. During good times people do not have the time to go back to school because they are working. During bad economic times people are inclined to upgrade their training and education and search for new careers.

By the end of 1986 employment had fallen 4.5%. By the first half of 1987 employment had declined 7.1% from the first half of 1986 (Table 1).

The industry hardest hit during the decline has been the construction industry. From 1986 to 1987 construction accounted for 65% of the jobs lost in the borough. In 1987 the borough reported 171 single family homes were built in the valley down from 520 in 1985 and 1,817 in 1986.

The most resilient industry has been retail trade. Employment gains were registered during the first half of 1987 after 200 jobs were lost the prior year. Surprisingly strong were food stores and eating and drinking establishments which comprise nearly 70% of total retail employment in the area. During the first half of 1987 employment in the food store sector increased over 5% as major grocers expanded.

### Summary and Outlook for 1988

As we have seen, employment levels in the MatSu valley are particularly sensitive to population levels. MatSu doesn't seem to follow the standard economic theory that says employment leads population—that is, employment opportunities promote population increases. Since the MatSu Borough is the residence of many Anchorage and some oil field workers it can be said that MatSu's population levels are related to employment opportunities in other areas besides those in the MatSu Borough.

The good news is that employment opportunities in Anchorage are be-

Figure 1
Matsu Employment by Quarter 1980–1987/1

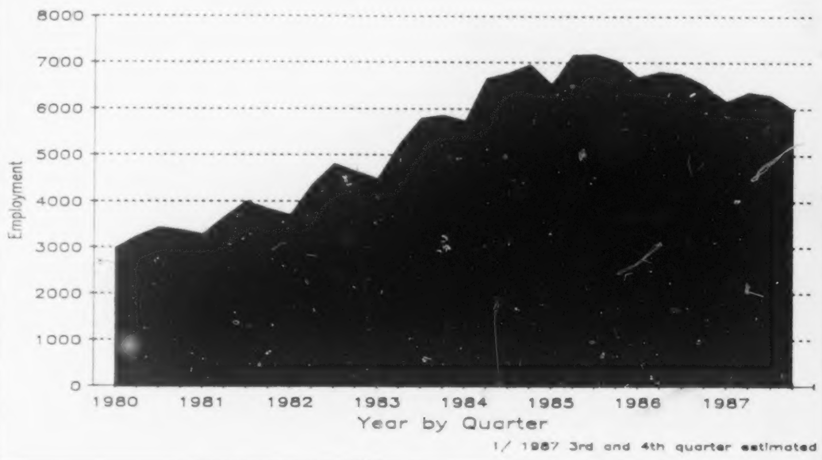
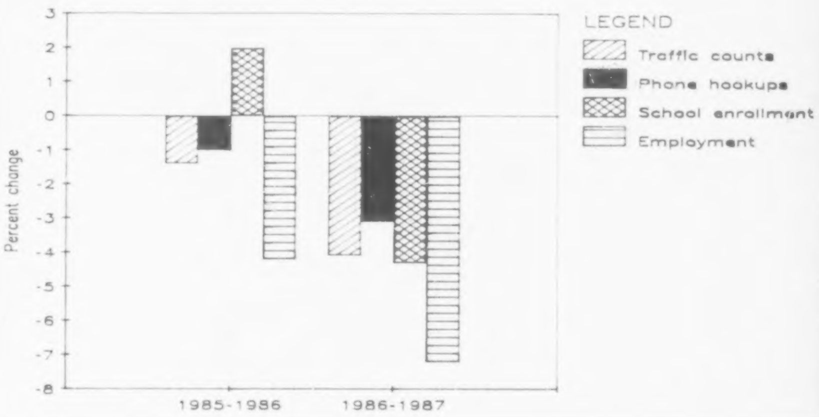


Figure 2
Matsu Economic Indicators Percent Change
1985–1986 and 1986–1987



## Table 1
## MatSu Employment
## 1980-1987

| Industry | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1st half 1986 | 1st half 1987 | Percent 1st half 1986 to 1987 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 3,265 | 3,701 | 4,383 | 5,355 | 6,542 | 6,991 | 6,699 | 6,758 | 6,275 | -7.1% |
| Mining | 34 | 99 | 101 | 21 | * | * | * | * | * | * |
| Construction | 178 | 253 | 518 | 778 | 971 | 710 | 427 | 379 | 235 | -38.0 |
| Manufacturing | 37 | 106 | 70 | 67 | 111 | 111 | 88 | 83 | 77 | -6.7 |
| Trans. Comm. & Util. | 319 | 343 | 381 | 525 | 595 | 670 | 680 | 666 | 671 | 0.8 |
| Trade | 733 | 748 | 898 | 1,173 | 1,547 | 1,736 | 1,590 | 1,545 | 1,647 | 6.6 |
| Wholesale Trade | 44 | 44 | 54 | 64 | 97 | 125 | 112 | 113 | 86 | -24.3 |
| Retail Trade | 689 | 704 | 845 | 1,109 | 1,450 | 1,611 | 1,479 | 1,432 | 1,561 | 9.0 |
| Finance-Ins & R.E. | 120 | 131 | 189 | 208 | 280 | 290 | 296 | 316 | 219 | -30.9 |
| Services | 460 | 537 | 604 | 793 | 991 | 1,129 | 1,101 | 1,117 | 992 | -11.2 |
| Government | 1,341 | 1,418 | 1,564 | 1,734 | 1,977 | 2,229 | 2,425 | 2,545 | 2,396 | -5.9 |
| Federal | 112 | 103 | 101 | 104 | 112 | 100 | 105 | 106 | 100 | -6.1 |
| State | 403 | 460 | 545 | 596 | 651 | 737 | 761 | 750 | 737 | -1.7 |
| Local | 826 | 855 | 919 | 1,035 | 1,214 | 1,392 | 1,559 | 1,689 | 1,559 | -7.7 |
| Miscellaneous | 34 | 66 | 51 | 56 | * | * | * | * | * | * |
| Total Wages (in thousands $) | $62,123 | $77,524 | $101,344 | $123,269 | $159,850 | $165,294 | $158,836 | $78,746 | $72,907 | -7.4 |
| Ave Monthly Wage | $1,586 | $1,742 | $1,920 | $1,912 | $2,034 | $1,969 | 1,976 | $1,942 | $1,935 | -0.4 |
| Number of Firms | 398 | 434 | 537 | 660 | 840 | 918.5 | 862 | 887 | 750 | -15.5 |

* Nondisclosable

Source: Alaska Department of Labor. *Statistical Quarterly*.

Note:(1) These figures do not include the National Guard employment increase which occurred late in 1986. They include 78 part-time and 35 full-time employees with an annual payroll of approximately $2 Million. (2) The employment statistics used in this table are based on nonagricultural wage and salary employment data by place of work and does not include self employed persons. It is important to keep in mind these statistics reflect jobs by place of work and thus do not reflect the total number of Matsu residents that have lost their jobs in Anchorage or elsewhere in the state. The statistics that reflect employment by place of residence are contained in the labor force statistics. To avoid confusing the two this analysis is limited to nonagricultural employment.

ginning to show signs of life and the population decline in the MatSu Borough is beginning to stabilize. This change is suggested by various indicators of population; telephone hookups, traffic counts and school enrollment. All of these indicators are down but they all seemed to be leveling out near the end of 1987. Unless we see a recurrence of the downturn early in 1988 it is likely that a turnaround is in store in late 1988 and early 1989.

Of course not all sectors will recover together. Those sectors with over capacity will continue to have declines in employment and the return of a healthy real estate market is further off than moderate job gains. Overall, look for a tapering off of job losses in 1988 and some gains by 1989.

Some of the highlights to watch for in 1988 will be a continued increase in tourism in the valley. Mountain climbers who arrive in May and June boost Talkeetna's economy every year. Also watch for the increase in the number of kindergarten and first graders entering school. For the past several years the school district has been gaining more lower grade students than it is losing in graduating seniors. About 450 seniors will graduate this spring, but over 880 kindergartners will become first graders and a similar size kindergarten class is expected to enroll next year. Thus it is likely that local education employment will grow slightly in 1988.

Look for steadier local government budgets, which means stable employment in local government for next year. VECO will hire 50 workers to build four oil recovery structures in Wasilla to be shipped to the North Slope. The planned construction of a new courthouse in Palmer and golf course should help the construction industry.

# The Kenai Peninsula Borough: An Economic Assessment

By Neal Fried

Economically speaking, 1987 was another rough year for the Kenai Peninsula. Employment declines continued in most industries, unemployment remained high while wages fell faster than employment, the number of building permits issued fell to levels not seen since the early 1970s, school enrollments declined, and sales figures brought little good news.

The Kenai Peninsula is one of the areas hardest hit by the present recession. In 1986 the peninsula's wage and salary work force declined 6.4% and in the first six months of 1987 it fell 6.1% from the first six months of 1986. All told, there are 1,000 fewer jobs on the peninsula today than there were in 1985. Its work force has regressed in size to the 1983-1984 level. Of the State's 23 boroughs and census areas, the peninsula's employment losses since the beginning of the recession in 1986 rank fifth percentage-wise. This is despite the fact that the peninsula has one of the most diverse private sector economies in the state: large fishing, tourism, and oil industries and a hydrocarbon based manufacturing industry which includes two petroleum refineries, a liquid natural gas plant and an ammonia-urea manufacturing complex.

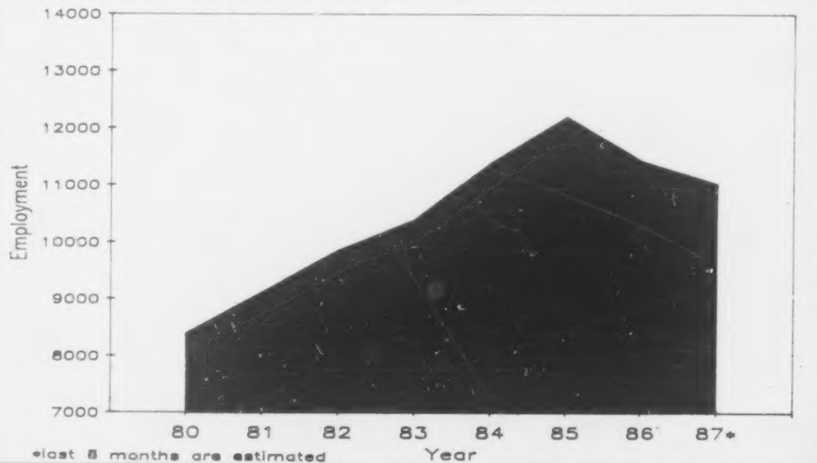
**The Kenai Peninsula is one of the areas hardest hit by the present recession.**

Part of the explanation lies in the fact that the Kenai Peninsula Borough was among the fastest growing economies during the oil revenue boom era in the early 1980s and is therefore falling the hardest during the oil revenue bust (Figure 1). The Kenai Peninsula, measured by employment, was the third fastest growing area in the state during this period (45.4%) and most of the growth was the result of expenditure of state oil revenues. Tourism also contributed to this growth but the area's other basic sectors contributed little. Despite having a diversified economy, most of the growth which took place in the 1980s was extremely vulnerable to a decline in oil revenues.

## Few Industries Escape Losses

Most major industry categories have lost ground (Table 1). The biggest loser has been the construction industry. Construction employment began falling in 1986 and by 1987 employment in construction had fallen almost to 1980 levels. Much of the secondary sector (services and finance-insurance and real estate) didn't experience losses until 1987, as the initial declines in the economy caught up with these industries.

Figure 1
Kenai Peninsula Employment, 1980 – 1987



Retail and wholesale trade employment fell both in 1986 and 1987. The opening of a Fred Meyer store in Kenai in late 1987 provided new job opportunities in retail trade. Taxable sales (excludes wholesale, construction sales, and retail purchases over $500) on the peninsula, however fell 5% from 1985 to 1986 and again by

4% for the first three quarters of 1987 from the like period in 1986 (Table 2). Possibly more telling has been the 7.5% decline in gross sales in 1987, which would include big ticket items such as large household furnishings, snow machines, construction materials, automobiles and other large items. Falling incomes and economic uncertainty are apparently causing people to put off these purchases until some future date.

The Kenai Peninsula's oil industry work force, the second largest in the state in terms of its percent share of total employment, was trounced by the oil price declines. By early 1987 oil industry employment had fallen by 29% from its peak. A number of oil industry service companies are based out of Kenai, and this segment of the state's oil industry was particularly hard hit when the oil industry contracted.

Figure 2
Unemployment Rates 1985 – 1987, Alaska and Kenai Peninsula

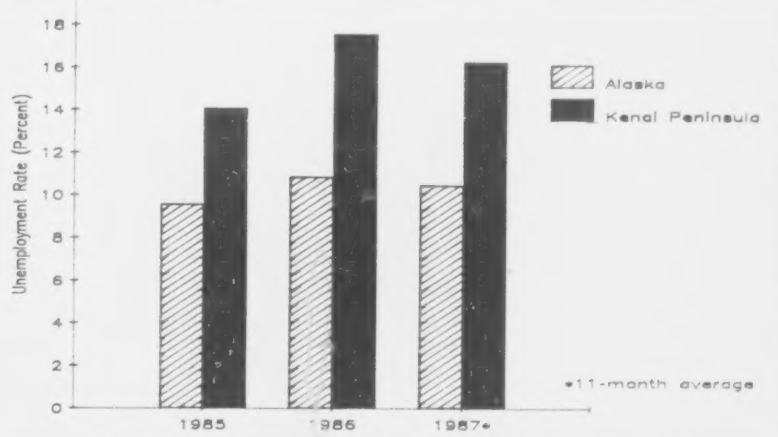
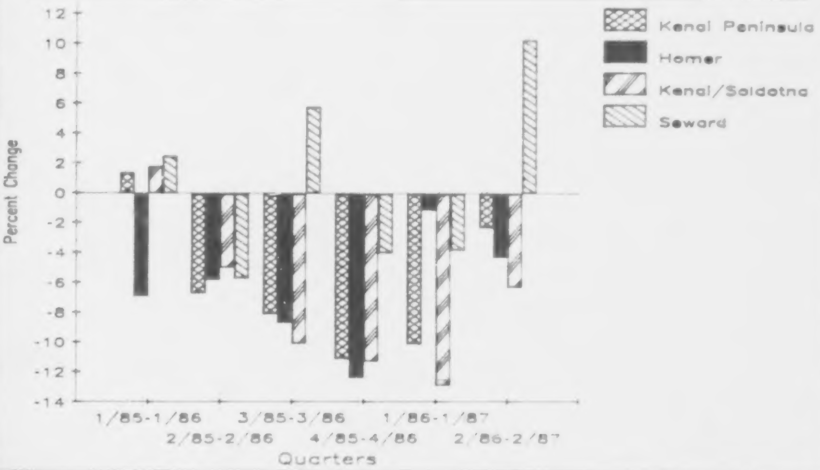


Figure 3
Percent Change in Employment by Quarter, 1985 – 1987



State and local government has also lost employment, but the losses have generally been small. Not all the impacts are in the employment statistics. For example Kenai Peninsula Borough employees' pay was temporarily cut 10% by shortening their work week.

The tourism picture was mixed. An increase in out-of-state visitors helped to offset the loss of Alaskan clientele. Tourism catering to Anchorage and Southcentral Alaska suffered because there were fewer residents with less income to spend.

The losses in employment quickly translated into a higher unemployment rate which went from 14.1% in 1985 to 17.6% in 1986, the highest in the state (Figure 2). The number of unemployed stood at 3,000 in 1986. In 1987 the rates began to fall; not as a result of an improved economic picture, but because many of the unemployed decided to leave Alaska or drop out of the labor market, and therefore went uncounted.

### Communities in the Borough

There are four large communities on the peninsula—Kenai, Soldotna, Homer and Seward (figure 3). With the exception of Kenai and Soldotna, their economies operate independently of each other and have had different experiences during the past two years.

### Kenai-Soldotna

The economy of the Kenai-Soldotna or central peninsula area dominates the Borough by virtue of its size. Seventy percent of the borough's employment is concentrated on the central peninsula. Its downturn has been somewhat more severe than the remainder of the borough (Table 3).

Overcapacity built into the economy during the prosperous years of 1980-1985 compounded the problem.

The price of single family homes has fallen 35-40% and some commercial space as much as 50%. Local sources expect additional softening in the real estate market before prices stabilize. This puts an additional drag on real estate, construction and retail trade.

### Homer

Homer's economy was squeezed in 1986 much like the rest of the state, losing 8% of its employment, but in 1987 employment and sales figures fell only slightly (Table 4). A good tourism and fishing season prevented additional deep declines in 1987.

If construction of the Bradley Lake hydroelectric project and the home porting of Oceantrawl's bottomfishing operation takes place as planned, Homer's economy should improve significantly. Bradley Lake's work force could peak at approximately 200 in 1988 and Oceantrawl has estimated that as many as 100 people may be hired in their operation in 1988 and the number could double by 1989. Because of these two projects, Homer's prospects for 1988 appear considerably better than they do for much of the remainder of the borough.

### Seward

Seward's economy has been impacted differently than the rest of the borough because the state's oil revenue boom largely skipped Seward. Employment grew little from

Table 1
Kenai Peninsula Employment by Industry
1985-1987

| | 1985 Annual Average | 1986 Annual Average | Percent Change 1985-1986 | 6 Month Average 1986 | 6 Month Average 1987 | Percent Change 1986-1987 |
|---|---|---|---|---|---|---|
| Total | 12,214 | 11,436 | -6.4% | 11,212 | 10,529 | -6.1% |
| Mining | 828 | 935 | 12.9 | 1,001 | 711 | -29.0 |
| Construction | 1,387 | 864 | -37.8 | 762 | 639 | -16.1 |
| Manufacturing | 1,419 | 1,295 | -8.7 | 1,095 | 1,100 | 0.5 |
| Trans. Comm. & Util. | 934 | 678 | -27.4 | 761 | 546 | -28.3 |
| Trade | 2,436 | 2,318 | -4.8 | 2,221 | 2,206 | -0.7 |
| Wholesale | 382 | 381 | -0.3 | 375 | 362 | -3.3 |
| Retail | 2,054 | 1,937 | -5.7 | 1,846 | 1,844 | -0.1 |
| Finance-Ins. & R.E. | 366 | 375 | 2.5 | 394 | 319 | -18.9 |
| Services & Misc. | 1,930 | 2,040 | 5.7 | 1,990 | 1,936 | -2.7 |
| Government | 2,915 | 2,932 | 0.6 | 2,990 | 3,072 | 2.7 |
| Federal | 210 | 225 | 7.3 | 217 | 206 | -4.8 |
| State | 836 | 823 | -1.6 | 829 | 777 | -6.2 |
| Local | 1,870 | 1,885 | 0.8 | 1,945 | 2,088* | 7.4 |

Source: Alaska Department of Labor, Statistical Quarterly.

* The method used to record school district employment does not account for small declines that occurred in 1987, resulting in an overstatement of local government employment.

Table 2
Kenai Peninsula Borough Taxable Sales Figures
1985-1987

| | 1985 Annual Sales | 1986 Annual Sales | Percent Change 1985-1986 | 9 Month Average 1986 | 9 Month Average 1987 | Percent Change 1986-1987 |
|---|---|---|---|---|---|---|
| Borough | $348,329,463 | $330,622,941 | -5.1% | $255,435,612 | $244,930,745 | -4.1% |
| Kenai | 76,279,352 | 70,883,866 | -7.1 | 53,860,146 | 49,668,834 | -7.8 |
| Soldotna | 86,990,850 | 84,113,053 | -3.3 | 63,506,265 | 58,886,543 | -7.3 |
| Homer | 54,990,691 | 53,581,239 | -2.6 | 42,675,715 | 41,601,899 | -2.5 |
| Seward | 25,231,782 | 26,172,424 | 3.7 | 21,126,545 | 21,283,686 | 0.7 |
| Balance | 104,836,788 | 95,872,359 | -8.6 | 74,266,941 | 73,489,783 | -1.0 |

Source: Kenai Peninsula Borough.

Table 3
Kenai-Soldotna Employment by Industry
1985-1987

| | 1985 Annual Average | 1986 Annual Average | Percent Change 1985-1986 | 6 Month Average 1986 | 6 Month Average 1987 | Percent Change 1986-1987 |
|---|---|---|---|---|---|---|
| Total | 8.581 | 8,024 | -6.5% | 7.972 | 7,213 | -9.5% |
| Mining | 735 | 850 | 15.6 | 911 | 644 | -29.4 |
| Construction | 1,029 | 618 | -39.9 | 566 | 420 | -25.8 |
| Manufacturing | 1,068 | 1,009 | -5.5 | 839 | 844 | 0.6 |
| Trans. Comm. & Util. | 602 | 401 | -33.4 | 474 | 333 | -29.7 |
| Trade | 1,823 | 1,663 | -8.8 | 1,611 | 1,582 | -1.8 |
| Wholesale | 325 | 307 | -5.6 | 313 | 281 | -10.4 |
| Retail | 1,499 | 1.356 | -9.5 | 1,298 | 1,301 | 0.2 |
| Finance-Ins. & R.E. | 263 | 278 | 6.0 | 295 | 196 | -33.6 |
| Services & Misc. | 1,258 | 1,369 | 8.8 | 1.366 | 1,257 | -8.0 |
| Government | 1,803 | 1,836 | 1.8 | 1,910 | 1,938 | 1.4 |
| Federal | 107 | 105 | -1.9 | 106 | 106 | 0.5 |
| State | 561 | 573 | 2.1 | 581 | 532 | -8.4 |
| Local | 1,134 | 1,157 | 2.0 | 1,224 | 1.300 | 6.2 |

Source: Alaska Department of Labor, ES202.

Table 4
Homer Employment by Industry
1985-1987

| | 1985 Annual Average | 1986 Annual Average | Percent Change 1985-1986 | 6 Month Average 1986 | 6 Month Average 1987 | Percent Change 1986-1987 |
|---|---|---|---|---|---|---|
| Total | 1,676 | 1,533 | -8.5% | 1,462 | 1.421 | -2.8% |
| Mining | 7 | 3 | -50.0 | 1 | 0 | -100.0 |
| Construction | 252 | 125 | -50.5 | 115 | 85 | -26.2 |
| Manufacturing | 175 | 138 | -21.0 | 121 | 122 | 1.2 |
| Trans. Comm. & Util. | 188 | 177 | -5.9 | 176 | 149 | -15.3 |
| Trade | 314 | 334 | 6.3 | 328 | 332 | 1.4 |
| Finance-Ins. & R.E. | 74 | 68 | -8.1 | 70 | 56 | -20.0 |
| Services & Misc. | 270 | 281 | 4.3 | 249 | 237 | -4.8 |
| Government | 398 | 408 | 2.6 | 404 | 440 | 9.0 |
| Federal | 39 | 39 | -0.6 | 40 | 39 | -2.5 |
| State | 21 | 18 | -13.3 | 18 | 29 | 58.3 |
| Local | 338 | 351 | 3.9 | 346 | 373 | 7.8 |

Source: Alaska Department of Labor, ES202.

1980-1985, but it managed to be one of the few areas of the state which staved off declines in 1986-1987 (Table 5). In 1987 employment managed to grow slightly, no small feat in light of the state's economy. Sales figures also improved during the 3rd and 4th quarters of 1987. Construction of the Springs Creek correction facility, tourism, and the coal loading activity has helped bolster the area's economy. Staffing the Spring Creek facility could keep Seward's economy moving ahead in 1988. Plans call for 180-200 employees to be hired for the facility which would cause Seward's wage

**Table 5**
**Seward Employment by Industry**
**1985-1987**

| | 1985 Annual Average | 1986 Annual Average | Percent Change 1985-1986 | 6 Month Average 1986 | 6 Month Average 1987 | Percent Change 1986-1987 |
|---|---|---|---|---|---|---|
| Total | 1,232 | 1,229 | -0.2% | 1,167 | 1,207 | 3.5% |
| Construction | 32 | 68 | 115.9 | 44 | 105 | 141.4 |
| Manufacturing | 171 | 139 | -18.3 | 128 | 132 | 3.5 |
| Trans. Comm. & Util. | 138 | 98 | -29.0 | 110 | 61 | -44.3 |
| Trade | 175 | 202 | 15.1 | 170 | 203 | 19.8 |
| Finance-Ins. & R.E. | 23 | 22 | -2.2 | 22 | 20 | -9.1 |
| Services & Misc. | 262 | 260 | -1.0 | 258 | 203 | -21.2 |
| Government | 433 | 441 | 1.7 | 437 | 420 | -3.9 |
| Federal | 39 | 52 | 34.2 | 50 | 35 | -30.0 |
| State | 241 | 220 | -8.6 | 220 | 205 | -7.0 |
| Local | 154 | 169 | 9.6 | 167 | 180 | 8.1 |

Source: Alaska Department of Labor, ES202.

and salary work force to grow quite dramatically.

**Conclusion**

The economic prospects for Homer and Seward will help offset the depressed central peninsula. The dramatically devalued dollar should encourage additional U.S. tourists and increase the number of foreign tourists. Westours, Alaska's largest tour operator, recently announced it would offer additional packaged tours to the Kenai Peninsula and cruise ship traffic to peninsula communities is projected to increase again this year. Tourism's brighter prospects in 1988 should help the entire peninsula. Given the potential activity for Seward and Homer and improved tourism the Kenai Peninsula Borough's economy is beginning to look better than the remainder of Southcentral Alaska.

# Alaska's Employment Scene

**By Edward Eboch**

December employment estimates offered little holiday cheer. Those industries that usually benefit from Christmas buying did not appear to be having a good holiday season as employment in trade fell, contrary to the usual seasonal increase. In addition, the over-the-year losses still persist although they continue to narrow from the previous year (Table 1). Alaska's unemployment rate edged up slightly in December to 9.7% (Table 9) This was a dramatic improvement over last year's rate of 11.2% as this December's rate was one of the lowest in the 1980s.

Alaska's total personal income fell .4% from the second quarter to the third quarter 1987 and was down 4.4% over-the-year.[1] The drop from second to third quarter was the second year that third quarter total personal income fell. Typically third quarter data increases as Alaska's employment peaks for the year during this quarter.

Alaska's projected exports at $1.44 billion[2] were up in 1987 and are expected to rise again in 1988. The improved exchange rate should help exports of fish and timber and also make Alaska a more desirable tourist destination for overseas visitors.

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[1] U.S. Department of Commerce, Bureau of Economic Analysis BEA 88-01, January 21, 1988.

[2] *Alaska Business Monthly*, Pacific-Alaska International Trade Report, February 1988, p. 24.

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 12/87 | r/ 11/87 | 12/86 | 11/87 | 12/86 |
| Nonag. Wage & Salary | 203,400 | 206,400 | 211,400 | -3,000 | -8,000 |
| Mining | 7,900 | 7,900 | 8,300 | 0 | -400 |
| Construction | 9,100 | 10,400 | 11,200 | -1,300 | -2,100 |
| Manufacturing | 9,700 | 11,300 | 7,900 | -1,600 | 1,800 |
| Food & Kindred Prod. | 4,200 | 5,200 | 2,700 | -1,000 | 1,500 |
| Lumber & Paper Prod. | 2,600 | 3,000 | 2,200 | -400 | 400 |
| All Other Mfg. | 2,900 | 3,100 | 3,000 | -200 | -100 |
| Trans. Comm. & Utilities | 16,900 | 17,000 | 17,300 | -100 | -400 |
| Trucking & Whseing. | 2,100 | 2,000 | 2,000 | 100 | 100 |
| Water Transportation | 1,000 | 1,000 | 1,000 | 0 | 0 |
| Air Transportation | 5,200 | 5,300 | 5,300 | -100 | -100 |
| Other Trans. Comm. & Utilities | 8,600 | 8,700 | 9,000 | -100 | -400 |
| Trade | 41,200 | 41,300 | 43,700 | -100 | -2,500 |
| Wholesale | 7,300 | 7,300 | 7,400 | 0 | -100 |
| Retail | 33,900 | 34,000 | 36,300 | -100 | -2,400 |
| Gen. Mer. & Apparel | 5,700 | 5,500 | 5,800 | 200 | -100 |
| Food Stores | 6,100 | 6,000 | 6,200 | 100 | -100 |
| Eating & Drinking Pl. | 11,400 | 11,800 | 12,700 | -400 | -1,300 |
| Other Retail Trade | 10,700 | 10,700 | 11,600 | 0 | -900 |
| Finance-Ins. & R.E. | 11,200 | 11,200 | 12,300 | 0 | -1,100 |
| Services & Misc. | 41,000 | 40,700 | 42,800 | 300 | -1,800 |
| Government | 66,400 | 66,600 | 67,900 | -200 | -1,500 |
| Federal | 18,600 | 18,600 | 18,600 | 0 | 0 |
| State | 18,800 | 19,100 | 19,100 | -300 | -300 |
| Local | 29,000 | 28,900 | 30,200 | 100 | -1,200 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1986.

p/ Denotes Preliminary Estimates.

r/ Denotes Revised Estimates.

**The next several months should give evidence to whether the economic slide is ending.**

The next several months should give evidence to whether the economic slide is ending or the apparent improvements are just temporary. An indication of the level of state government spending, an important factor to the health of the state's economy, should clarify the picture. The Alaska legislature is working on the governor's jobs bill, with a mid-March target date, that should give a shot in the arm to the construction industry, the hardest hit sector in the economy. This bill, if passed, will offer temporary help to the hard hit economy.

While Alaska's other basic economic sectors are doing well, Alaska's economic recovery still depends on the price of oil and associated state revenues. The oil companies have indicated an intent to increase exploration and development budgets if the price of oil remains in the $18 a barrel range. The State's fiscal year 1988 budget was based on a lower figure but state spending is very sensitive to the change in the price of oil. Both oil company and state government expenditures can be expected to increase if oil prices remain at current levels. If that were to happen we could conclude that the worst of Alaska's current economic difficulties are over and some economic improvements could be expected.

### Industry Employment

**Mining employment** remained level over-the-month with a slight improvement in oil and gas employment offsetting seasonal losses in mineral mining and other mining employ-

### Table 2
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Anchorage

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 12/87 | 11/87 | 12/86 | 11/87 | 12/86 |
| Nonag. Wage & Salary | 100,650 | 101,150 | 105,700 | -500 | -5,050 |
| Mining | 3,200 | 3,250 | 3,150 | -50 | 50 |
| Construction | 4,750 | 5,600 | 5,850 | -850 | -1,100 |
| Manufacturing | 2,050 | 2,150 | 2,150 | -100 | -100 |
| Food & Kindred Prod. | 400 | 400 | 400 | 0 | 0 |
| Other Mfg. | 1,650 | 1,750 | 1,750 | -100 | -100 |
| Trans. Comm. & Utilities | 8,600 | 8,650 | 9,050 | -50 | -450 |
| Trucking & Whseing. | 1,300 | 1,300 | 1,350 | 0 | -50 |
| Water Transportation | 250 | 250 | 250 | 0 | 0 |
| Air Transportation | 2,750 | 2,800 | 2,950 | -50 | -200 |
| Other Trans. Comm. & Utilities | 4,300 | 4,300 | 4,500 | 0 | -200 |
| Trade | 24,800 | 24,700 | 26,250 | 100 | -1,450 |
| Wholesale | 5,450 | 5,450 | 5,700 | 0 | -250 |
| Retail | 19,350 | 19,250 | 20,550 | 100 | -1,200 |
| Gen. Merchandise | 2,100 | 2,000 | 2,150 | 100 | -50 |
| Food Stores | 3,150 | 3,100 | 3,150 | 50 | 0 |
| Eating & Drinking Pl. | 7,150 | 7,300 | 7,850 | -150 | -700 |
| Other Retail Trade | 6,950 | 6,850 | 7,400 | 100 | -450 |
| Finance-Ins. & R.E. | 7,250 | 7,200 | 8,050 | 50 | -800 |
| Services & Misc. | 23,700 | 23,550 | 24,400 | 150 | -700 |
| Government | 26,300 | 26,050 | 26,800 | 250 | -500 |
| Federal | 10,600 | 10,500 | 10,350 | 100 | 250 |
| State | 7,000 | 6,950 | 7,150 | 50 | -150 |
| Local | 8,700 | 8,600 | 9,300 | 100 | -600 |

### Table 3
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Anchorage-MatSu

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 12/87 | 11/87 | 12/86 | 11/87 | 12/86 |
| Nonag. Wage & Salary | 106,700 | 107,350 | 112,400 | -650 | -5,700 |
| Mining | 3,200 | 3,250 | 3,150 | -50 | 50 |
| Construction | 4,950 | 5,800 | 6,150 | -850 | -1,200 |
| Manufacturing | 2,050 | 2,200 | 2,200 | -150 | -150 |
| Trans. Comm. & Utilities | 9,250 | 9,350 | 9,750 | -100 | -500 |
| Trade | 26,200 | 26,100 | 27,850 | 100 | -1,650 |
| Finance-Ins. & R.E. | 7,850 | 7,800 | 8,600 | 50 | -750 |
| Services & Misc. | 24,700 | 24,550 | 25,550 | 150 | -850 |
| Government | 28,500 | 28,300 | 29,150 | 200 | -650 |

**Manufacturing continues to be the bright spot in Alaska's economy.**

ment. Oil and gas employment seems to have bottomed out at 1983-84 levels while mineral mining is showing significant improvements after the lows of the early 1980s.

**Construction** employment continues to lead the year-to-year losses, down 20% from December 1986. This years level is most comparable to December 1980. Even with the jobs bill the outlook for the construction industry will remain gloomy unless oil development or the State's capital budget increases dramatically.

**Manufacturing** continues to be the bright spot in Alaska's economy. Both timber and fishing have substantial over-the-year gains despite seasonal declines in December. With the improved exchange rate and the Japanese economy increasing their consumption the outlook for this industry remains bright. There is discussion of new wood processing mills

### Table 4
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Fairbanks

| | p/<br>12/87 | r/<br>11/87 | 12/86 | Changes From:<br>11/87 | 12/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 24,750 | 25,350 | 26,500 | -600 | -1,750 |
| Mining | 50 | 50 | 100 | 0 | -50 |
| Construction | 1,350 | 1,550 | 1,550 | -200 | -200 |
| Manufacturing | 500 | 500 | 600 | 0 | -100 |
| Trans. Comm. & Utilities | 2,350 | 2,400 | 2,550 | -50 | -200 |
| Trucking & Whseing. | 350 | 350 | 400 | 0 | -50 |
| Air Transportation | 850 | 850 | 900 | 0 | -50 |
| Other Trans. Comm. & Utilities | 1,150 | 1,200 | 1,250 | -50 | -100 |
| Trade | 5,450 | 5,500 | 5,750 | -50 | -300 |
| Wholesale | 750 | 750 | 900 | 0 | -150 |
| Retail | 4,700 | 4,750 | 4,850 | -50 | -150 |
| Gen. Mer. & Apparel | 650 | 600 | 700 | 50 | -50 |
| Food Stores | 800 | 800 | 750 | 0 | 50 |
| Other Retail Trade | 3,250 | 3,350 | 3,400 | -100 | -150 |
| Finance-Ins. & R.E. | 900 | 900 | 1,050 | 0 | -150 |
| Services & Misc. | 5,050 | 5,100 | 5,600 | -50 | -550 |
| Government | 9,100 | 9,350 | 9,300 | -250 | -200 |
| Federal | 2,850 | 2,900 | 2,900 | -50 | -50 |
| State | 3,800 | 4,000 | 3,800 | -200 | 0 |
| Local | 2,450 | 2,450 | 2,600 | 0 | -150 |

### Table 5
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Interior

| | p/<br>12/87 | r/<br>11/87 | 12/86 | Changes From:<br>11/87 | 12/86 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 28,250 | 29,200 | 30,450 | -950 | -2,200 |
| Mining | 200 | 200 | 250 | 0 | -50 |
| Construction | 1,400 | 1,600 | 1,600 | -200 | -200 |
| Manufacturing | 500 | 550 | 600 | -50 | -100 |
| Trans. Comm. & Utilities | 2,600 | 2,650 | 2,900 | -50 | -300 |
| Trade | 5,650 | 5,750 | 6,100 | -100 | -450 |
| Finance-Ins. & R.E. | 950 | 1,000 | 1,100 | -50 | -150 |
| Services & Misc. | 5,550 | 5,650 | 6,050 | -100 | -500 |
| Government | 11,400 | 11,800 | 11,850 | -400 | -450 |

and conversion of existing seafood plants to the processing of bottomfish.

**Trade, transportation, communications, real estate, and services** industries employment continue their slide. Typically, retail trade employment increases in December in response to holiday buying, but not this year. Slight gains in general merchandise and apparel and other retail outlets were offset by seasonal declines in eating and drinking establishments.

There was little change in **government** employment except for an end of term drop in state education (University of Alaska). The over-the-year loss in local government employment was greater in the noneducational sector than the education sector, but both lost at least 500 jobs over-the-year.

### Table 6
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Southeast Alaska

|  |  |  |  | Changes From: |  |
|---|---|---|---|---|---|
|  | p/<br>12/87 | r/<br>11/87 | 12/86 | 11/87 | 12/86 |
| Nonag. Wage & Salary | 26,700 | 27,300 | 26,700 | -600 | 0 |
| Construction | 850 | 950 | 950 | -100 | -100 |
| Manufacturing | 3,100 | 3,550 | 2,550 | -450 | 550 |
| Food & Kindred Prod. | 500 | 550 | 350 | -50 | 150 |
| Lumber & Paper Prod. | 2,400 | 2,800 | 2,000 | -400 | 400 |
| All Other Mfg. | 200 | 200 | 200 | 0 | 0 |
| Trans. Comm. & Utilities | 2,000 | 2,000 | 2,000 | 0 | 0 |
| Trade | 4,250 | 4,250 | 4,350 | 0 | -100 |
| Wholesale | 350 | 350 | 300 | 0 | 50 |
| Retail | 3,900 | 3,900 | 4,050 | 0 | -150 |
| Finance-Ins. & R.E. | 1,100 | 1,100 | 1,150 | 0 | -50 |
| Mining, Services & Misc. | 4,200 | 4,250 | 4,300 | -50 | -100 |
| Government | 11,200 | 11,200 | 11,400 | 0 | -200 |
| Federal | 2,000 | 2,050 | 2,050 | -50 | -50 |
| State | 4,850 | 4,900 | 4,950 | -50 | -100 |
| Local | 4,350 | 4,250 | 4,400 | 100 | -50 |

### Table 7
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Gulf Coast

|  |  |  |  | Changes From: |  |
|---|---|---|---|---|---|
|  | p/<br>12/87 | r/<br>11/87 | 12/86 | 11/87 | 12/86 |
| Nonag. Wage & Salary | 17,650 | 18,500 | 18,000 | -850 | -350 |
| Mining | 650 | 650 | 850 | 0 | -200 |
| Construction | 700 | 850 | 950 | -150 | -250 |
| Manufacturing | 2,650 | 3,150 | 1,900 | -500 | 750 |
| Food & Kindred Prod. | 2,100 | 2,550 | 1,300 | -450 | 800 |
| All Other Mfg. | 550 | 600 | 600 | -50 | -50 |
| Trans. Comm. & Utilities | 1,400 | 1,300 | 1,350 | 100 | 50 |
| Trade | 3,350 | 3,400 | 3,450 | -50 | -100 |
| Wholesale | 500 | 500 | 500 | 0 | 0 |
| Retail | 2,850 | 2,900 | 2,950 | -50 | -100 |
| Finance-Ins. & R.E. | 550 | 550 | 650 | 0 | -100 |
| Services & Misc. | 2,950 | 3,100 | 3,200 | -150 | -250 |
| Government | 5,400 | 5,500 | 5,650 | -100 | -250 |
| Federal | 550 | 600 | 600 | -50 | -50 |
| State | 1,450 | 1,500 | 1,500 | -50 | -50 |
| Local | 3,400 | 3,400 | 3,550 | 0 | -150 |

## Regional Employment Scene

The **Anchorage-Matanuska** region continues to suffer the most as a result of the recession. Employment declines in December are not unusual in many areas of the state because of seasonal changes in manufacturing. Anchorage, on the other hand, typically has an increase in employment during December as retail trade and other sectors add employment for the holiday season. This year the gains in the service and trade sectors were too small to offset the seasonal drops elsewhere in Anchorage's economy.

The **Fairbanks** economy continues to drift lower as the full impact of the military expansion has not been fully felt yet. The over-the-month losses hit every industry but as additional military expansion occurs and hiring of civilians by the military catches up with the expansion, Fairbanks' employment picture should improve.

The remaining areas of the state, with the exception of the **Northern Region**, are managing rather well during this recession. The **Southwest** region actually has over-the-year gains in employment while the **Gulf Coast** had a slight drop due to declines in oil and gas employment. The **Southeast** was relatively flat over-the-year despite large cutbacks in government employment in Juneau. Impressive gains in fish harvesting and timber employment in the coastal communities of these areas have offset losses in other industries.

## Conclusions

Alaska's economy has suffered staggering losses in employment the past two years. Next month a review of the annual benchmarked numbers (current estimates are replaced with actual employment counts through June 1987 and the estimates from July to December are revised) will better indicate the timing and magnitude of the changes in Alaska's employment. While preliminary benchmark data suggests that there was some difference in the timing and depth of losses by industry the December total employment numbers do not appear to differ greatly from the new numbers. The revised data will be published in the March issue of *Alaska Economic Trends.*

Alaska's economy has both positive and negative factors at work. The biggest negative factor is the uncertain price for oil. Other factors such as real estate and banking problems and the loss in employment over-the-year have a negative psychological effect on spending and investment behavior even though the worst may be over.

On the positive side, Alaska is experiencing over-the-year employment gains in nearly all of Alaska's basic industries. Federal government, fishing and mining industry employment are up and continue to grow. The exchange rate is favorable to Alaska's tourist industry and to its export of fish and timber.

While sectors of the economy, and regions of the economy, appear to be moving in different directions the economy could begin to recover with a strengthening of oil prices or an increase in state budgets.

## Table 8
## Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 12/87 | R/ 11/87 | 12/86 | P/ 12/87 | R/ 11/87 | 12/86 | P/ 12/87 | R/ 11/87 | 12/86 |
| Mining | 1,226.55 | 1,150.69 | 1,344.56 | 51.0 | 49.9 | 56.0 | 24.05 | 23.06 | 24.01 |
| Construction | 868.68 | 840.22 | 1,036.46 | 36.0 | 35.2 | 42.6 | 24.13 | 23.87 | 24.33 |
| Manufacturing | 504.50 | 491.97 | 495.50 | 39.6 | 39.9 | 38.5 | 12.74 | 12.33 | 12.87 |
| Food & Kindred Prod | 328.89 | 324.48 | 247.85 | 39.2 | 38.4 | 27.6 | 8.39 | 8.45 | 8.98 |
| Lumber & Paper Prod | 689.29 | 665.95 | 668.86 | 43.0 | 43.3 | 53.0 | 16.03 | 15.38 | 12.62 |
| Trans., Comm. & Util. | 514.62 | 545.90 | 557.00 | 35.2 | 36.2 | 34.9 | 14.62 | 15.08 | 15.96 |
| Trade | 347.33 | 356.31 | 386.12 | 32.4 | 32.9 | 33.9 | 10.72 | 10.83 | 11.39 |
| Wholesale | 516.46 | 514.26 | 568.51 | 38.2 | 38.9 | 37.8 | 13.52 | 13.22 | 15.04 |
| Retail | 293.10 | 305.35 | 329.29 | 30.5 | 31.0 | 32.7 | 9.61 | 9.85 | 10.07 |
| Finance-Ins. & R.E. | 375.02 | 392.63 | 401.36 | 34.0 | 34.9 | 34.6 | 11.03 | 11.25 | 11.60 |

Benchmark March 1986

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

## Table 9
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 12/87 | R/ 11/87 | 12/86 | P/ 12/87 | R/ 11/87 | 12/86 | P/ 12/87 | R/ 11/87 | 12/86 | P/ 12/87 | R/ 11/87 | 12/86 |
| Alaska Statewide | 244,318 | 244,520 | 241,777 | 23,808 | 23,569 | 27,052 | 9.7 | 9.6 | 11.2 | 220,510 | 220,951 | 214,725 |
| Anch-MatSu Region | 130,784 | 130,232 | 131,306 | 10,727 | 11,340 | 12,613 | 8.2 | 8.7 | 9.6 | 120,057 | 118,892 | 118,693 |
| Anchorage Borough | 116,455 | 115,599 | 115,970 | 8,229 | 8,576 | 9,791 | 7.1 | 7.4 | 8.4 | 108,226 | 107,023 | 106,179 |
| MatSu Borough | 14,329 | 14,633 | 15,336 | 2,498 | 2,764 | 2,822 | 17.4 | 18.9 | 18.4 | 11,831 | 11,869 | 12,514 |
| Gulf Coast Region | 25,308 | 25,676 | 24,622 | 3,319 | 3,064 | 3,860 | 13.1 | 11.9 | 15.7 | 21,989 | 22,612 | 20,762 |
| Kenai Peninsula Bor | 15,614 | 15,928 | 15,198 | 2,494 | 2,436 | 2,810 | 16.0 | 15.3 | 18.5 | 13,120 | 13,492 | 12,388 |
| Kodiak Island Bor | 5,844 | 5,913 | 5,630 | 364 | 278 | 456 | 6.2 | 4.7 | 8.1 | 5,480 | 5,635 | 5,174 |
| Valdez-Cordova | 3,850 | 3,835 | 3,794 | 461 | 350 | 594 | 12.0 | 9.1 | 15.7 | 3,389 | 3,485 | 3,200 |
| Interior Region | 36,960 | 37,164 | 37,304 | 4,981 | 4,760 | 5,395 | 13.5 | 12.8 | 14.5 | 31,979 | 32,404 | 31,909 |
| Fairbanks North Star Br | 31,879 | 32,081 | 32,194 | 4,112 | 3,945 | 4,487 | 12.9 | 12.3 | 13.9 | 27,767 | 28,136 | 27,707 |
| Southeast Fairbanks | 2,199 | 2,214 | 2,228 | 335 | 325 | 368 | 15.2 | 14.7 | 16.5 | 1,864 | 1,889 | 1,860 |
| Yukon-Koyukuk | 2,882 | 2,869 | 2,882 | 534 | 490 | 540 | 18.5 | 17.1 | 18.7 | 2,348 | 2,379 | 2,342 |
| Northern Region | 7,849 | 7,858 | 7,628 | 774 | 751 | 795 | 9.9 | 9.6 | 10.4 | 7,075 | 7,107 | 6,833 |
| Nome | 3,042 | 3,034 | 2,978 | 354 | 334 | 382 | 11.6 | 11.0 | 12.8 | 2,688 | 2,700 | 2,596 |
| North Slope Borough | 2,767 | 2,754 | 2,655 | 164 | 139 | 141 | 5.9 | 5.0 | 5.3 | 2,603 | 2,615 | 2,514 |
| Northwest Arctic Br. | 2,040 | 2,070 | 1,995 | 256 | 278 | 272 | 12.5 | 13.4 | 13.6 | 1,784 | 1,792 | 1,723 |
| Southeast Region | 32,212 | 32,248 | 30,935 | 3,095 | 2,878 | 3,557 | 9.6 | 8.9 | 11.5 | 29,117 | 29,370 | 27,378 |
| Haines Borough | 909 | 904 | 871 | 123 | 111 | 132 | 13.5 | 12.3 | 15.2 | 786 | 793 | 739 |
| Juneau Borough | 13,805 | 13,937 | 13,250 | 901 | 921 | 1,116 | 6.5 | 6.6 | 8.4 | 12,904 | 13,016 | 12,134 |
| Ketchikan Gateway Br. | 6,401 | 6,453 | 6,224 | 536 | 537 | 709 | 8.4 | 8.3 | 11.4 | 5,865 | 5,916 | 5,515 |
| Pr. of Wales-Outer Ktch | 2,329 | 2,338 | 2,260 | 342 | 334 | 392 | 14.7 | 14.3 | 17.3 | 1,987 | 2,004 | 1,868 |
| Sitka Borough | 3,833 | 3,876 | 3,601 | 364 | 377 | 339 | 9.5 | 9.7 | 9.4 | 3,469 | 3,499 | 3,262 |
| Skagway-Yakutat-Ang. | 1,618 | 1,532 | 1,533 | 372 | 275 | 362 | 23.0 | 18.0 | 23.6 | 1,246 | 1,257 | 1,171 |
| Wrangell-Petersburg | 3,317 | 3,208 | 3,196 | 457 | 323 | 507 | 13.8 | 10.1 | 15.9 | 2,860 | 2,885 | 2,689 |
| Southwest Region | 11,205 | 11,342 | 9,982 | 912 | 776 | 832 | 8.1 | 6.8 | 8.3 | 10,293 | 10,566 | 9,150 |
| Aleutian Islands | 2,845 | 2,910 | 2,562 | 96 | 88 | 118 | 3.4 | 3.0 | 4.6 | 2,749 | 2,822 | 2,444 |
| Bethel | 4,475 | 4,536 | 3,983 | 390 | 343 | 352 | 8.7 | 7.6 | 8.8 | 4,085 | 4,193 | 3,631 |
| Bristol Bay Borough | 447 | 454 | 394 | 55 | 51 | 45 | 12.3 | 11.2 | 11.4 | 392 | 403 | 349 |
| Dillingham | 1,988 | 2,016 | 1,778 | 168 | 147 | 160 | 8.5 | 7.3 | 9.0 | 1,820 | 1,869 | 1,618 |
| Wade Hampton | 1,450 | 1,426 | 1,265 | 203 | 147 | 157 | 14.0 | 10.3 | 12.4 | 1,247 | 1,279 | 1,108 |

P/ Preliminary    R/ Revised    1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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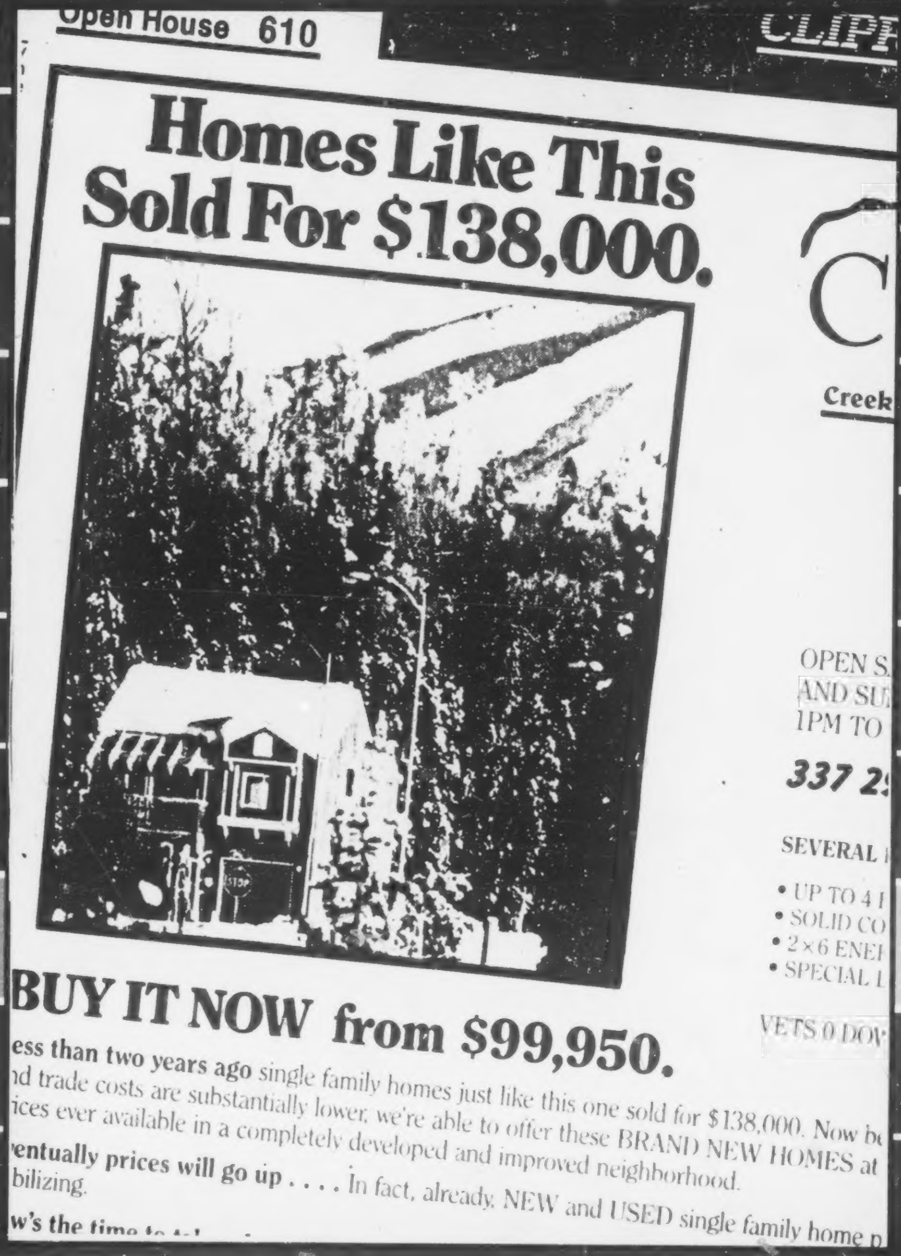
ALASKA ECONOMIC

# TRENDS



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March 1988

1987 The Year in Review

- Alaska
- Anchorage
- Fairbanks
- Gulf Coast
- Southeast Alaska

Revised Employment, Labor Force and Hours and Earnings

Alaska's Employment Scene

ALASKA DEPARTMENT OF LABOR STEVE COWPER, GOVERNOR

# Alaska Economic Trends

*Steve Cowper*, Governor, State of Alaska

*Jim Sampson*, Commissioner
Department of Labor

*Frank Spargo*, Director
Administrative Services

*Chuck Caldwell*, Chief
Research and Analysis
*Edward Eboch, Ph.D.*, Editor

March 1988
Volume 8
Issue 3

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*Alaska Economic Trends* is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact Dr. Edward W. Eboch, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

# Alaska—1987, The Year in Review

**By Edward Eboch**

While 1986 is viewed as the start of Alaska's economic downturn, 1987 may be viewed as the turnaround year. The effects of Alaska's recession may not be over but analysis of the benchmarked employment numbers (Table 1 and the revised employment numbers, page 14) suggests that the downturn in employment has ended.

The raw employment numbers (Figure 1) suggest that the economy is still contracting. The seasonally adjusted data (Figure 2), however, indicates the worst is behind. In fact, when looking at seasonally adjusted numbers it appears the drop in employment ended as early as September 1987, if not earlier.

Some caution should be exercised in interpreting the seasonally adjusted numbers since many factors can cause them to appear to be increasing. The seasonally adjusted numbers indicating an upturn are from a significantly lower base. A closer look at the data, however, suggests the seasonally adjusted numbers may understate the basic strength in the economy.

Only the failure of construction and construction related firms to have their usual summer season increase in employment, and the poor fish harvest in the Southeast in August and September caused the seasonally adjusted numbers to record declines in late summer.

### Geographic Analysis

The contraction in the economy has been largely restricted to Anchorage, and to a lesser extent Fairbanks, Juneau, and some Interior and Northern communities. Anchorage as a regional supplier of goods, services, and workers is heavily dependent on the oil industry and state construction spending. With the cutbacks in North Slope activities and state projects Anchorage has suffered. Outmigration has added to Anchorage's problems as less employment and spending have spread to other businesses. (Preliminary estimates indicate that Anchorage has suffered the majority of the approximately 20,000 loss in population.)

The coastal communities of Southeast, Southwest, and Gulf Coast are experiencing relatively healthy economies although not growing at the rates to which Alaskan's have become accustom. Fishing has been up strong over-the-year and timber is experienc-

Figure 1
Nonagricultural Wage & Salary 1985-1987

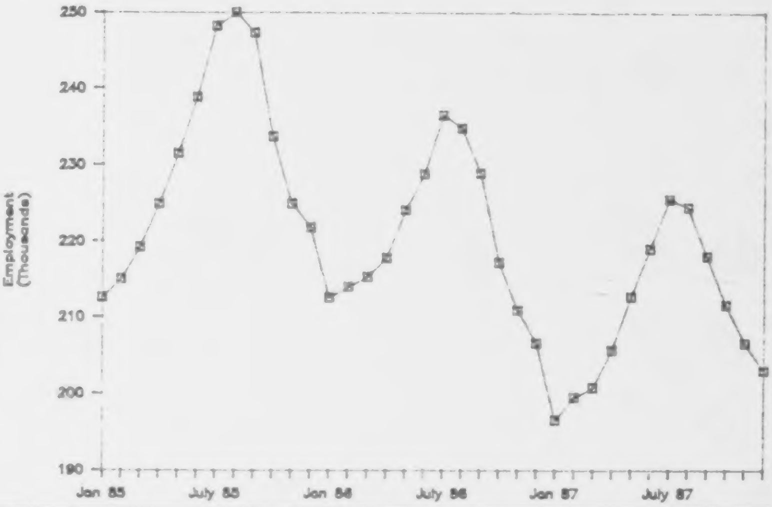
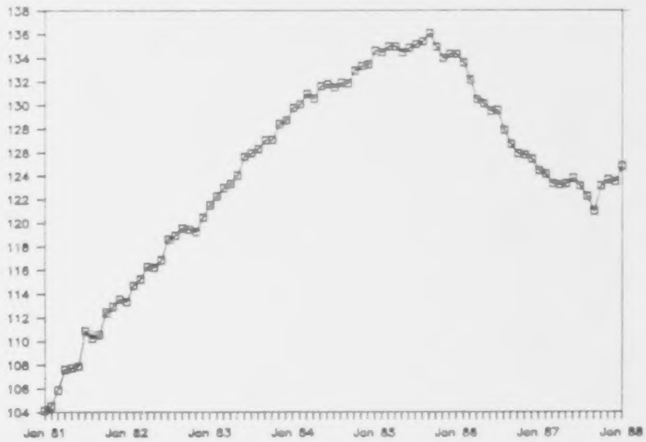


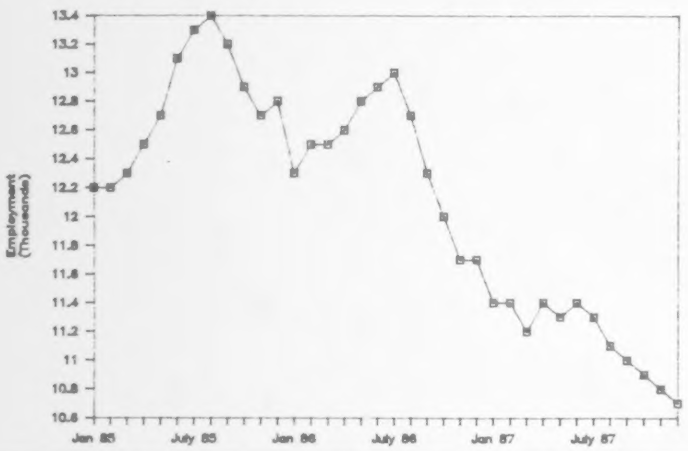
Figure 2
Composite Nonagricultural Employment
Seasonally Adjusted Index



ing one of its best years. The offpeak season gains in fishing are most impressive and offer full time job opportunities. This means local income and spending that will eventually add to growth in support sector firms in these communities.

Fairbanks' economy has been helped by the increase in military personnel and construction spending. Construction at the Green's Creek Mine and anticipation of mining employment has offset some losses in Juneau, although much more is needed to offset the loss of jobs and income from cuts in state government employment. The Northern area has also benefited from construction of the road to the Red Dog Mine. Because of the improved options available to local residents and a generally positive outlook these communities appear to be on the rebound.

Figure 3
Finance, Insurance & Real Estate
Employment 1985-1987



### Table 1
### Alaska
### Nonagricultural Wage & Salary Employment
### By Place of Work

| | Annual Average | | | Percent Change | | |
|---|---|---|---|---|---|---|
| | 1985 | 1986 | 1987 | 86/85 | 87/85 | 87/86 |
| Nonag. Wage & Salary | 230,700 | 220,600 | 210,300 | -4.4 | -8.8 | -4.7 |
| Mining | 9,500 | 9,100 | 8,500 | -4.2 | -10.5 | -6.6 |
| Construction | 18,600 | 13,400 | 10,600 | -28.0 | -43.0 | -20.9 |
| Manufacturing | 12,100 | 12,600 | 13,500 | 4.1 | 11.6 | 7.1 |
| Seafood Processing | 6,200 | 6,600 | 7,400 | 6.5 | 19.4 | 12.1 |
| Lumber & Paper Prod. | 2,300 | 2,600 | 2,900 | 13.0 | 26.1 | 11.5 |
| All Other Mfg. | 3,600 | 3,400 | 3,300 | -5.6 | -8.3 | -2.9 |
| Trans. Comm. & Utilities | 18,700 | 17,900 | 17,700 | -4.3 | -5.3 | -1.1 |
| Trucking & Whseing | 2,300 | 2,300 | 2,400 | 0.0 | 4.3 | 4.3 |
| Water Transportation | 1,400 | 1,200 | 1,000 | -14.3 | -28.6 | -16.7 |
| Air Transportation | 5,800 | 5,400 | 5,300 | -6.9 | -8.6 | -1.9 |
| Other Trans. Comm. & Util. | 9,300 | 9,100 | 9,100 | -2.2 | -2.2 | 0.0 |
| Trade | 45,800 | 43,700 | 41,400 | -4.6 | -9.6 | -5.3 |
| Wholesale | 8,700 | 8,100 | 7,400 | -6.9 | -14.9 | -8.6 |
| Retail | 37,100 | 35,600 | 34,000 | -4.0 | -8.4 | -4.5 |
| Gen. Mer. & Apparel | 5,300 | 5,200 | 4,900 | -1.9 | -7.5 | -5.8 |
| Food Stores | 6,000 | 5,800 | 5,900 | -3.3 | -1.7 | 1.7 |
| Eating & Drinking Pl. | 13,400 | 13,200 | 12,600 | -1.5 | -6.0 | -4.5 |
| Other Retail Trade | 12,300 | 11,400 | 10,700 | -7.3 | -13.0 | -6.1 |
| Finance-Ins. & R.E. | 12,800 | 12,400 | 11,200 | -3.1 | -12.5 | -9.7 |
| Services & Misc. | 44,800 | 43,600 | 41,800 | -2.7 | -6.7 | -4.1 |
| Government | 68,300 | 68,000 | 65,700 | -0.4 | -3.8 | -3.4 |
| Federal | 17,600 | 17,600 | 18,000 | 0.0 | 2.3 | 2.3 |
| State | 20,500 | 20,200 | 18,700 | -1.5 | -8.8 | -7.4 |
| Local | 30,300 | 30,200 | 29,000 | -0.3 | -4.3 | -4.0 |

## Industry Activities

The most surprising happening was how rapidly the support sectors adjusted to economic conditions. Although the economy began to decline by late 1985 with employment below the previous year, services employment did not fall below 1986 until April; finance, insurance and real estate until June. The decline in the support sector was caused by both a loss in purchasing power as people were laid off and by the psychological impact that caused firms to prepare for the worst. As business declined many firms closed their doors. Those remaining trimmed back their staffs, anticipating difficult times. By the end of 1986 firms in the support sectors had become cautious in their hiring as the usual summer and Christmas season hiring was less intense.

While mining, construction, and state and local government as well as the support industries continued to contract, increases in federal government, timber, and fisheries employment stemmed the free fall in employment during 1987. By the end of 1987 the increases in the basic industries of timber, fishing, mineral mining, and federal government were beginning to have a positive effect on the support industries as services and trade employment began to show some strength.

The one exception appeared to be in finance, insurance, and real estate (F.I.R.E.) which was still suffering from the collapse in the real estate market (Figure 3). While the rate of foreclosures had declined by late 1987 there are still problems in the real estate market. Bad commercial and housing loans were the cause of many bank closures and consolidations by mid-1987, the cause for the current weakness in F.I.R.E. While the industry appears under pressure, the seasonal adjusted numbers indicate that even F.I.R.E. has rebounded from its lows of late summer (Figure 4).

While the oil and gas industry gradually lost ground over the year, the other mining segment of the industry was expanding rapidly, up over 17%. Metal mining was up even more while the quarrying segment was off because of the decline in the construction industry. Unfortunately, from an employment standpoint, mining employment is dominated by the oil and gas industry where losses exceeded the entire other mining employment. The result was a loss in mining employment over the year indicating the importance of the oil and gas industry to Alaska's economy; beyond it's tax contributions to state operations.

The construction industry was hit much harder than the early estimates of employment exhibit, but not as much as the 20.8% drop indicates. At least one major firm classified as oil field services had most of its employment actually doing construction work during 1987. While this is always a problem in assigning a firms employment it became more of a problem in 1987. The competitive situation in Alaska had firms in these industries vying with each other for work to remain in business. Large firms that in the past concentrated on oil field service construction work were aggressively bidding for any construction work available. As bad as things look in the construction industry the seasonal adjusted numbers suggest the bottom has been reached, albeit from a much lower base.

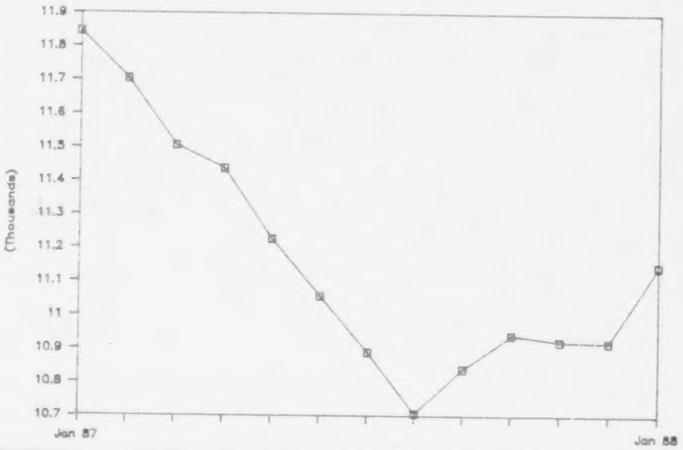
## Conclusion

Alaska's economy lost employment at an increasing rate in late 1986 and early 1987 but by the end of the year strength in several basic industries began to stem the loss in employment. Growth in fishing, timber, and federal government employment largely offset losses in other industries.

When looking at the seasonally adjusted data it appears the bottom was reached by late summer/early fall. Adjusting for manufacturing, however, suggests the rest of the economy may still be contracting even with gains in federal government and mineral mining.

The losses were not equally distributed around the state. Anchorage, the Northern Region, and a few interior communities suffered to a much greater extent than the rest of the state. The coastal communities saw fishing and timber rebound just as state spending was cut. Fairbanks had an increase in military construction spending and an influx of military personnel that mitigated the loss in spending from cuts elsewhere. Juneau suffered from state budget cuts but mining and fishing ventures, while not adding much to employment immediately, improved the outlook for an improved economy and seemed to stem the collapse.

Figure 4
Finance, Insurance and Real Estate
Seasonally Adjusted Employment



As people left the state, net losses to migration is estimated to exceed 20,000 over the last two years, the employment scene improved in many communities. Unemployment rates began the year at near record levels but by December were some of the lowest in the 1980s. While jobs were not plentiful, at least people who wanted work could usually find jobs, although it may be in a different profession that most likely paid less.

# Anchorage—1987, The Year in Review

By Greg Huff

Although 1987 cannot be viewed as the end of the recession, it can be viewed as the beginning of the end. The benchmark employment numbers for Anchorage reveal annual employment levels falling 6.8%, but they were deteriorating quicker and over a broader range of industries in the beginning of the year than at the end. In January, for example, employment levels were down 9%, but by December employment losses had slowed to 2.7%.

In all, 7,400 jobs were lost in 1987, bringing the total number of jobs lost since the beginning of the recession to 13,400. The two years of decline bring Anchorage's employment levels to those found at midyear 1982 (Figure 1). However, on the bright side, this represents 26% more jobs than there were at the beginning of the decade. In other words, Anchorage has experienced an average job increase of over 3.0% annually when averaging out the boom and bust cycles of the last seven years.

Nonetheless, the recession has caused many hardships on workers. Thousands have lost jobs and have decided to leave Anchorage. Since 1985 Anchorage's population has declined by over 5,000 people according to estimates.

### Comparison of Original Estimates and Benchmark Estimates

The trend patterns of the two series, as illustrated in Figure 2, are similar, but the benchmark numbers show employment levels declining more than the original estimates had indicated. The benchmark numbers show employment levels declining 6.8% versus the 5.3% decline indicated by earlier estimates.

Table 1
Anchorage Employment
1986-1987

| | 1986 | 1987 | Percent Change |
|---|---|---|---|
| Nonag. Wage & Salary | 108,500 | 101,100 | -6.8 |
| Mining | 3,700 | 3,200 | -13.5 |
| Construction | 7,200 | 5,600 | -22.2 |
| Manufacturing | 2,500 | 2,300 | -8.0 |
| Transportation | 9,800 | 9,400 | -4.1 |
| Trucking & Warehousing | 1,400 | 1,500 | 7.1 |
| Water Transportation | 300 | 300 | 0.0 |
| Air Transportation | 3,400 | 3,200 | -5.9 |
| All Other Transportation | 4,600 | 4,500 | -2.2 |
| Trade | 25,800 | 23,400 | -9.3 |
| Wholesale | 6,200 | 5,400 | -12.9 |
| Retail | 19,700 | 18,000 | -8.6 |
| Gen.Merch. & Apparel | 2,600 | 2,500 | -3.8 |
| Food Stores | 2,900 | 2,800 | -3.4 |
| Eating & Drinking Pl. | 7,900 | 7,100 | -10.1 |
| All Other Retail | 6,200 | 5,600 | -9.7 |
| Finance-ins. & R.E. | 8,200 | 7,400 | -9.8 |
| Services | 24,900 | 23,700 | -4.8 |
| Government | 26,400 | 26,000 | -1.5 |
| Federal | 10,000 | 10,400 | 4.0 |
| State | 7,200 | 6,700 | -6.9 |
| Local | 9,100 | 8,900 | -2.2 |

For detailed analysis of the original estimates and benchmark numbers contact research and analysis. (Data users Note: Even though the benchmark numbers are derived from figures published in the Statistical Quarterly the series varies in some industries. For more information contact R&A).

The deviation of the two series before June 1986 is a result of adjustments to airline transportation employment between Anchorage and Fairbanks. After June the two series deviated even more as actual employment declined during the month of July. This was a rare event until this recession when it occurred again in July 1987.

The largest difference between the original and benchmark numbers occurred between December of 1986 and January 1987. Here the original estimates did not fully capture the magnitude at which firms were dropping out of the market. On top of the normal post-Christmas layoffs, in January firms were closing their doors in record numbers.

### Trends by Industry

Employment in the **construction** industry in 1987 declined 22%, its lowest level since early 1981 (Figure 3). Over 4,500 jobs have been lost in the industry since its slide began in 1985. This accounts for over 30% of all the jobs lost in Anchorage since that time. This is particularly startling when the industry that represents less than 10% of all the jobs in Anchorage, accounts for 30% of the jobs lost.

When construction permit data is analyzed this decline is understandable. In 1987, valuations of Municipality building permits totalled $80 million down from $240 million in 1986 and over $1 billion in 1985. Not since 1972 has construction been as slow as it was in 1987.

Employment in the **mining** industry (95% of which is oil and gas related) declined by 500 jobs for the second year in a row. These declines have resulted in a loss of nearly one-quarter of the jobs that existed in 1985. The majority of the jobs that were lost were among the oil field service firms, such as those providing drilling or geophysical services. These components of the oil and gas industry are always the most sensitive to radical oil price fluctuations such as seen in 1986. By early 1987 employment levels began to stabilize at levels similar to those in mid-1981.

The general story in the **government** sector in 1987 was the federal government's employment gains, offsetting some of the employment declines at the state and local levels. The net result was a decline of only 400 government workers, leaving 26,000 jobs intact.

Federal government employment increased by some 400 jobs in 1987, a 4% increase. These gains were distributed evenly among both the civilian military and civil services components. The Department of Labor employment numbers do not include uniformed personnel which totalled 11,700 in 1987, up 900 from 1986. In fact, the bases recorded their highest uniformed personnel count of the decade in 1987.

State government was the hardest hit of the government sectors with employment dropping nearly 7% or 500 jobs. Most of these declines were in what we classify as the noneducational segment of state government (that is, state government less the University system).

Although the restructuring of the university and community college system did create some job losses, enrollment in the system did not

Figure 1
Anchorage Employment 1979-1987

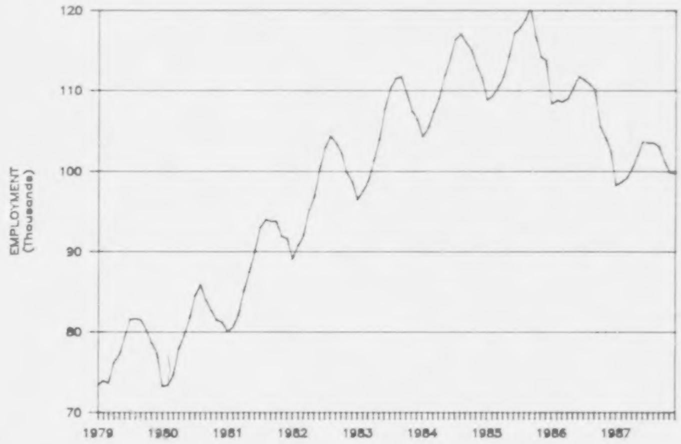


Figure 2
Anchorage Employment 1986-1987
Estimates vs. Benchmark

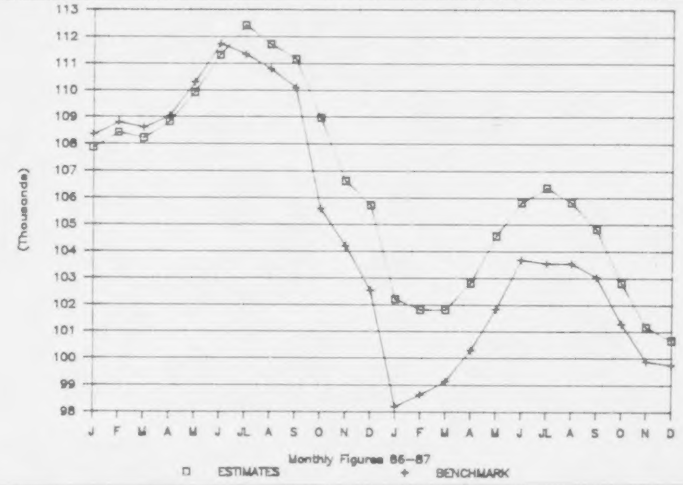
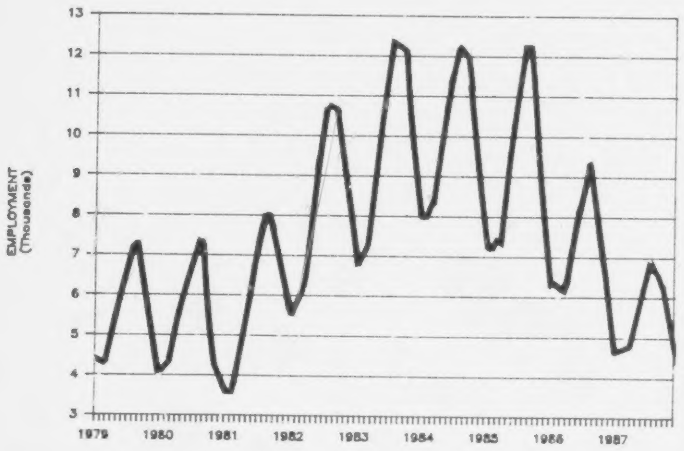


Figure 3
Anchorage Construction Employment 1979-1987



decline appreciably and the number of credit hours being taken increased resulting in staffing levels remaining fairly stable.

Local government employment declined 2.2% in 1987 with most of the declines occurring in the second half of the year. As with state government, the non-education segment (this includes the utilities owned by the municipality) experienced most of the employment losses. In part, this was due to how the school district was staffing positions. Generally they hired more part-time/temporary staff than normal, which resulted in employment gains, yet payroll declined.

The bulk of the jobs lost in Anchorage in 1987 were found in the **support** industries, those sectors which provide goods and services to the primary or basic sectors and to the resident population. So as mining, construction, and government employment fell and population declined the "ripple effect" took hold in 1986 and picked up momentum in 1987.

This increased momentum resulted in trade employment declining over 9.3% in 1987 compared to a 5.5% decline in 1986. The finance, insurance and real estates sector had employment losses of 4.7% in 1986 which increased to 8.5% in 1987. The big news in this industry was bank foreclosures. Both Bank of the North and First Interstate Bank went under and were absorbed by National Bank of Alaska. Mutual Bank and United Bank Alaska, on the verge of disaster, merged to form Alliance Bank. These shakeups were not the only cause for declining bank employment levels. The "healthy" banks have also reduced staff for the lean times.

The service industry also suffered losses as a result of cutbacks in the basic sector and loss of income. Particularly hard hit by construction declines were the architecture and engineering firms. Employment in that sector fell 27% in 1987, a decline it also experienced in 1986. Employment in the building supply and materials sector also had double digit employment declines.

The only support sector industry showing signs of health was the legal services sector which had employment increases of nearly 6.0% (200 jobs) in 1987.

## Conclusion

The 1987 benchmark employment numbers show that Anchorage employment has fallen to mid-1982 levels. The largest employment losses occurring during the first half of 1987. As the year ended the rate at which jobs were being lost had decreased considerably. What does this trend mean for future job opportunities? The next issue of Alaska Economic Trends will contain employment forecasts to 1990.

# Fairbanks—1987, The Year in Review

By Neal Fried

Nineteen eighty-seven proved to be another rough year for the Fairbanks economy. Employment fell hard in almost all industries. Foreclosures reached new heights, building permits issued reached their lowest point in more than 18 years, and bankruptcies continued to grow. The cumulative impact of the 1986 and 1987 declines has pushed employment levels in Fairbanks' back to 1982-1983 levels. Essentially three years of employment growth vanished (figure 1).

Fairbanks was not the only community experiencing the second year of an economic downturn—almost all other communities along the railbelt were in similar straits. In 1987 employment in Fairbanks fell by 4.9%, or 1,300 jobs. These losses were more moderate than the 1986 declines. In 1986 1,800 jobs were lost which represented a 6.3% decline.

The 1987 benchmark employment numbers show that the employment estimates made during the course of the year slightly underestimated the decline in Fairbanks' employment. The large deviation in the transportation sector was a result of a large employer which operates statewide reporting all of its employment in Fairbanks. Transportation employment appears to have declined by approximately 600 as a result of this adjustment but in fact the real decline was much less.

## Industry Losses Broaden

Though the 1987 employment declines were not quite as steep as in 1986, a broader group of industries contributed to the losses. All but one major industry category lost ground in 1987 (Table 1). In 1986 construction was responsible for more than half of all employment losses. Among the top contenders this year were two industries in Fairbanks' secondary sector-finance insurance and real estate and services. Both of these industries were among the few that made it through 1986 without losing ground, but the losses taken in other industries caught up with them in 1987.

**Finance, insurance and real estate** was hurt by the growing surplus of residential and commercial property. According to the Fairbanks North Star Borough Community Research Center, rental and housing prices fell

Figure 1
Fairbanks Nonagricultural Employment, 1980-1987

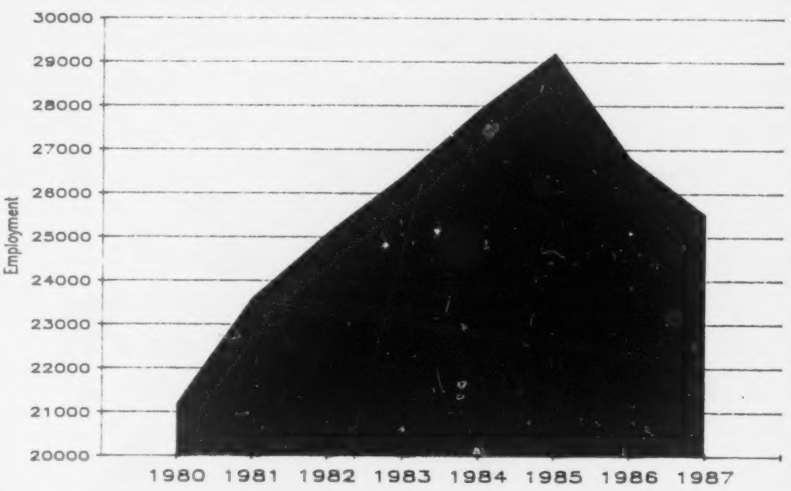


Table 1
Fairbanks Wage and Salary Employment
1986-1987

| | 1986 | 1987 | Percent Change 1986-1987 |
|---|---|---|---|
| Nonag. Wage & Salary | 26,800 | 25,500 | -4.9 |
| Mining | 100 | 100 | 0.0 |
| Construction | 1,700 | 1,600 | -5.9 |
| Manufacturing | 600 | 500 | -16.7 |
| Trans. Comm. & Utilities | 2,100 | 2,200 | 4.8 |
| Trucking & Whseing. | 400 | 400 | 0.0 |
| Air Transportation | 300 | 300 | 0.0 |
| Other Trans. Comm. & Util. | 1,300 | 1,500 | 15.4 |
| Trade | 5,800 | 5,500 | -5.2 |
| Wholesale | 900 | 700 | -22.2 |
| Retail | 4,900 | 4,700 | -4.1 |
| Food Stores | 700 | 800 | 14.3 |
| All Other Trade | 4,200 | 4,000 | -4.8 |
| Finance-Ins. & R.E. | 1,100 | 900 | -18.2 |
| Services & Misc. | 5,900 | 5,500 | -6.8 |
| Government | 9,500 | 9,100 | -4.2 |
| Federal | 2,800 | 2,800 | 0.0 |
| State | 3,900 | 3,700 | -5.1 |
| Local | 2,800 | 2,600 | -7.1 |

Figure 2
Fairbanks Residential Building Permits, 1970-1987

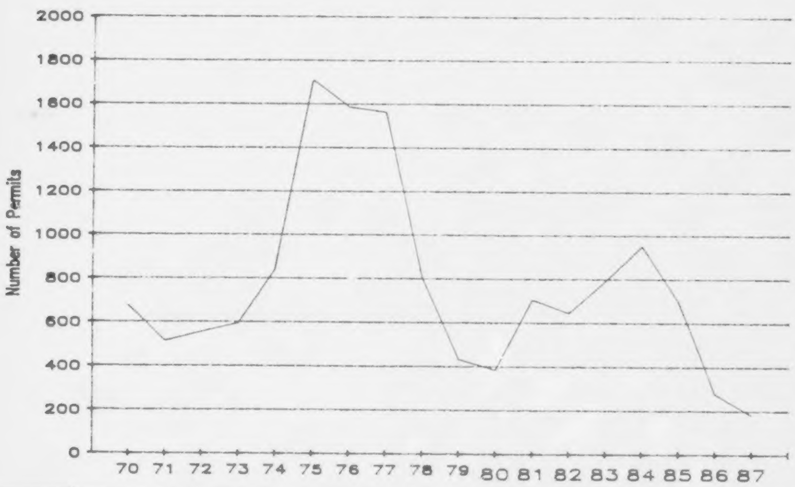
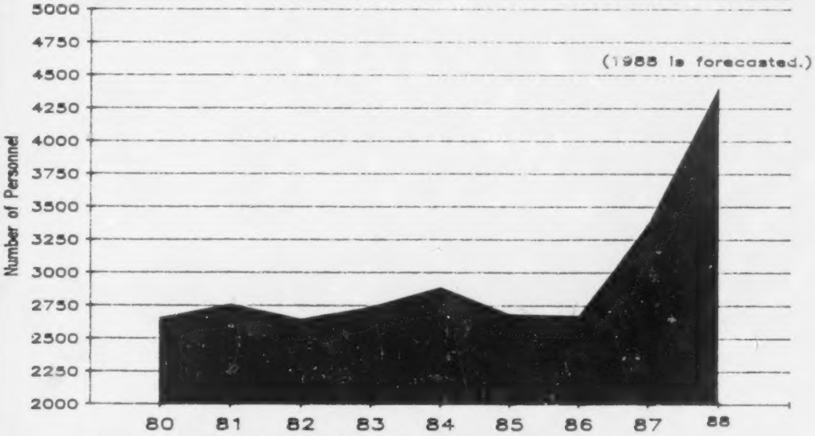


Figure 3
Uniformed Military Personnel on Ft. Wainwright, FFY 80-88



Sources: 80—85, Ft. Wainwright Public Affairs Office
86—88, Ft. Richardson Public Affairs Office

and mortgage activity fell off dramatically. The number of foreclosed properties more than tripled in 1987. In addition, banks and other lending institutions recorded their worst year in 1987. A number of lending institutions closed and consolidated which has meant smaller work forces.

Traditionally, the **service** industry is among the more resilient industries during recessionary times, and Fairbanks was no exception. The breadth of this industry, which includes medical, legal, and entertainment services; lodging, and private social services, gives it more staying power than other industries. But, by 1987 the service industry could no longer fend off employment losses. Falling incomes and a general decline in business activity caused the service industry to lose ground.

Tourism has remained healthy keeping lodging operators busy during the summer months but the off season activity has been markedly slower during the past two years because of a drop off in business related travelers. As a result, some lodging operators who remained open year-round in the past have chosen to close for the winter season and others have pared their winter work force. Entertainment services has suffered because of losses to disposable income. Even medical services lost ground when Fairbanks Memorial Hospital laid off 37 of its workers during the latter part of 1987. In spite of the service industy's present declines, when the recession has run its course this industry will be one which experienced only moderate losses compared to most other industries because of its diversity.

**Construction** employment dropped 6% in 1987, versus 45% in 1986. The number of residential building permits issued fell to 181, the smallest number in more than 18 years (Figure 2). Given these stark statistics, it is hard to believe construction didn't fall more, but none of these statistics takes public construction and military (except housing) construction into account. Military construction and other large public projects such as the South Fairbanks Expressway helped keep the losses below the double digit level.

**Government** sectors losses increased in 1987. Federal government's employment levels remained flat in spite of the influx of military personnel. Military related civilian employment did climb moderately but non-military federal employment fell by a corresponding amount. State government (which includes the University) lost some ground, but most of these losses occurred via attrition and early retirements. By the last quarter of the year state government employment levels stabilized. Local government took the biggest hit because of revenue shortfalls and the inability to raise revenues. The City of Fairbanks had the largest losses, but the Fairbanks Municipal Utilities System, the School District and the North Star Borough have all experienced personnel cuts.

### The Military

The deployment of the 6th Light Infantry Division in Fairbanks was seen by some as the panacea to Fairbanks economic problems. Though the number of uniformed military personnel over the past year and a half increased by approximately 1,500 (figure 3), most measurable economic impacts (with the exception of construction) remain elusive. Part of the reason may be that many of the soldiers are recent arrivals. More likely it's because of the insulated nature of military operations. Many of the soldiers live on base and purchase most of their goods and services there—the military economy operates semi-independently of the rest of the economy. New housing has been constructed on base, which has meant the expectations of big demand for off-base housing in the community has not materialized. There is little doubt economic activity related to the 6th Light Infantry Division has been generated, but the magnitude of the present downturn has hidden the Division's influence on the economy.

### Conclusion

The tentacles of the recession in 1987 reached into sectors of the Fairbanks economy which were largely untouched in 1986, or in previous economic contractions. The public sector, typically immune from past recessions and the bastion of job stability, is the best example of this. Nineteen eighty-seven was not a good year for those who lost their jobs, for job seekers, or for many business which struggled to survive. Positive news was difficult to find. The only silver lining was the fact that overall losses began to moderate in 1987. This could lead us to the conclusion that the economic rout of Fairbanks' economy which began in 1986 is now winding down.

## Gulf Coast—1987, The Year in Review

**By Neal Fried**

The Gulf Coast does not represent one integrated economic region; it represents a number of independent economies. Therefore, generalizations about the entire region are difficult to make. The region includes the Valdez-Cordova census area, the Kodiak Island Borough, and the Kenai Peninsula Borough.

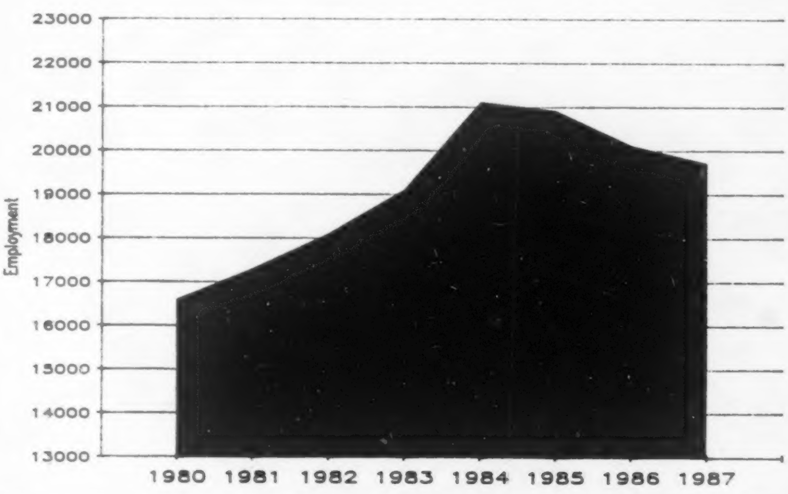
Nineteen eighty-seven represented a further setback for the region's economy; 400 jobs were lost which translates into a two percent loss in employment. Though any loss of employment is not good news, employment declines moderated considerably in 1987, and were less precipitous than in most other regions of the state (Figure 1).

Within the region the economic performance of each area differed. Kodiak's employment increased in 1987 as a result of rapid growth in the bottom fish industry. Both Valdez-Cordova and the Kenai Peninsula Borough, however, lost ground in 1987 (See February Trends for a detailed treatment of the Kenai Peninsula's economy).

### Industry Analysis

Not even Kodiak's healthy economy could provide enough impetus to prevent the region's **construction** industry employment from falling to 1980 levels. A surplus of housing and commercial space depressed the demand for new private sector construction and the plunging state capital budget lent no support to the public side of the industry. As a result, employment in the construction industry fell 23% in 1987, a slight improvement over 1986's 32% drop (Table 1).

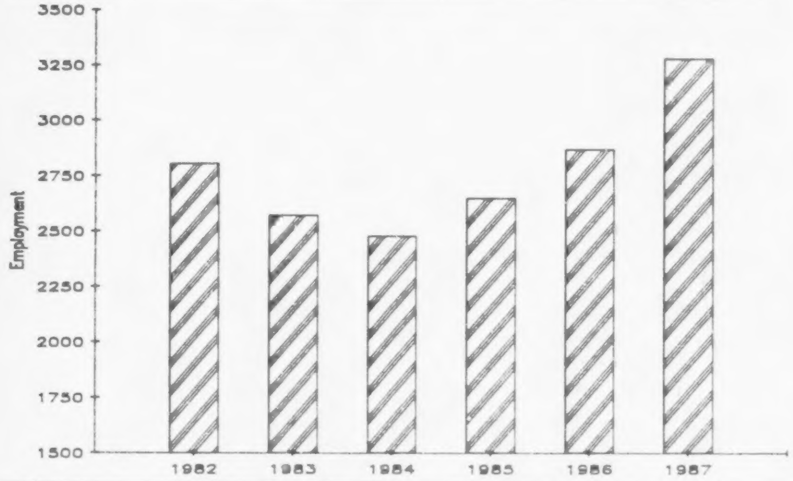
Figure 1
Gulf Coast Nonagricultural Employment, 1980-1987



### Table 1
### Gulf Coast Wage and Salary Employment
### 1986-1987

| | 1986 | 1987 | Percent Change 1986-1987 |
|---|---|---|---|
| Nonag. Wage & Salary | 20.100 | 19,700 | -2.0 |
| Mining | 900 | 800 | -11.1 |
| Construction | 1,300 | 1,000 | -23.1 |
| Manufacturing | 3,500 | 3.900 | 11.4 |
| Seafood Processing | 2.900 | 3,300 | 13.8 |
| All Other Mfg. | 600 | 600 | 0.0 |
| Trans. Comm. & Utilities | 1,400 | 1.300 | -7.1 |
| Trade | 3,500 | 3.600 | 2.9 |
| Wholesale | 500 | 500 | 0.0 |
| Retail | 3,000 | 3,100 | 3.3 |
| Finance-Ins. & R.E. | 700 | 600 | -14.3 |
| Services & Misc. | 3.300 | 3,200 | -3.0 |
| Hotels and Other Lodging | 600 | 600 | 0.0 |
| All Other Services | 2,800 | 2,700 | -3.6 |
| Government | 5,500 | 5,300 | -3.6 |
| Federal | 500 | 500 | 0.0 |
| State | 1,600 | 1,500 | -6.3 |
| Local | 3,400 | 3.300 | -2.9 |

## Figure 2
## Gulf Coast Seafood Processing Employment, 1982-1987



In contrast to the region's construction industry, **manufacturing** was one of the few industries with gains in 1987 (Figure 2). All manufacturing's gains can be attributed to the fishing industry. It was a good salmon year in most areas with good volume and prices. The crab season continues to remain below historic levels but appears to be slowly rebounding. What accounts for the surge in the seafood processing industry is the relatively new bottom fishery. Most of this activity is based out of Kodiak—but many of the fishing communities in the region, including Cordova, Homer, and Seward have also begun to develop this fishery. If the bottom fishery continues to flourish, and a year round fishery develops fully, it will make Alaska more competitive in world markets and provide a stable source of jobs and incomes to local communities.

This entire region's **mining** (oil) industry is based in **Kenai**. Kenai is also the home base to many oil service companies in the state. It was this part of the industry which suffered the greatest losses in 1987. Unlike other coastal communities this industry's losses contributed to local economic woes.

The story was mixed in the support industries. Retail trade performed quite well in the midst of a down economy. Employment grew by 100. Finance, insurance and real estate and services were not as fortunate. In 1986 the Kenai Peninsula Savings and Loan was one of the first of what was to become a string of lending institutions to close their doors. In 1987 other closures and consolidations of lending institution caused further reductions in work force during the latter part of the year. The poor real estate market contributed to most of these bank failures and layoffs in the industry.

Normally considered the bedrock of stability and job security, the public sector did not get through 1987 unscathed. Falling oil revenues and property values forced state and local **government** to reduce their work force. Though most of the reductions were relatively small, the fact that the public sector joined the private sector in this economic contraction emphasizes the depth and breadth of the recession.

### Conclusion

As in so many other places in the state, 1987 was another year of economic struggle for many individuals and businesses in the Gulf Coast region. Many people left and many businesses ceased to operate. For the lucky inhabitants who depend on the fishing industry for their livelihood, 1987 was probably a prosperous year. In the Kodiak Island Borough, there were few signs of a recession. The fact that the losses moderated in 1987 may be one sign that the rest of the region could begin to pull itself out of this recession sometime this year.

# Southeast Alaska—1987, The Year in Review

By John Boucher

For the second consecutive year, Southeast Alaska wage and salary employment declined from the previous year, down 1.7% which came on the heels of a 0.9% drop from 1985 to 1986. The loss of nearly 500 jobs in 1987 put annual average employment in Southeast Alaska at 28,600.

While employment losses are never anything to cheer about, there is some consolation in the fact that employment losses in many regions of the state were much more severe than they were in Southeast Alaska. Other regions of the state lost four to seven percent of their total employment from 1986 to 1987 so the 1.7% loss in Southeast Alaska made it one of the better economic performers during the past year.

## Industry Employment

The **construction** industry experienced a 1.0% employment decline in 1987, and construction's percentage share of total employment remained at one of its lowest levels since 1975. (Table 1) A good sign is that the drop was the smallest decline since the onset of the construction downturn in 1984. It looks as if Southeast Alaska construction has reached a level that can be sustained provided there are no further economic surprises. A rapid drop in the price of oil or an event which jeopardizes the current healthy outlook for Southeast's manufacturing industry would have a negative im-

Table 1
Construction & Southeast Employment
1975-1987

| | Const. | Total | Const. as % of Total | % Change from Previous Year |
|---|---|---|---|---|
| 1978 | 997 | 24,763 | 4.0 | 2.4 |
| 1979 | 944 | 24,967 | 3.8 | -5.3 |
| 1980 | 1,212 | 27,610 | 4.4 | 28.4 |
| 1981 | 1,428 | 27,267 | 5.2 | 17.8 |
| 1982 | 1,514 | 27,844 | 5.4 | 6.0 |
| 1983 | 2,017 | 28,706 | 7.0 | 33.2 |
| 1984 | 1,814 | 28,875 | 6.3 | -10.1 |
| 1985 | 1,665 | 29,326 | 5.7 | -8.2 |
| 1986 | 1,098 | 29,072 | 3.8 | -34.1 |
| 1987 | 1,087 | 28,598 | 3.8 | -1.0 |

Table 2
Southeast Alaska
Nonagricultural Wage & Salary Employment
1985, 1986 & 1987 Annual Averages [1]

| | 1987 Annual Avg | 1986 Annual Avg | 1985 Annual Avg | 86-87 Net Change | 86-87 Percent Change | 85-87 Percent Change |
|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 28,598 | 29,072 | 29,326 | -474 | -1.6 | -2.5 |
| Construction | 1,087 | 1,098 | 1,665 | -11 | -1.0 | -34.7 |
| Manufacturing | 4,102 | 3,854 | 3,219 | 248 | 6.4 | 27.4 |
| Seafood Processing | 1,094 | 1,160 | 1,160 | -66 | -5.7 | -5.7 |
| Lumber & Paper Prod | 2,794 | 2,490 | 2,015 | 304 | 12.2 | 38.7 |
| Other Manufacturing | 214 | 203 | 203 | 11 | 5.4 | 5.4 |
| Trans., Comm & Utilities | 2,095 | 2,107 | 2,032 | -12 | -0.6 | 3.1 |
| Trade | 4,528 | 4,465 | 4,552 | 63 | 1.4 | -0.5 |
| Wholesale Trade | 391 | 335 | 370 | 56 | 16.7 | 5.7 |
| Retail Trade | 4,138 | 4,130 | 4,182 | 8 | 0.2 | -1.1 |
| Finance-Ins. & R.E. | 1,059 | 1,166 | 1,114 | -107 | -9.2 | -4.9 |
| Mining, Services & Misc. | 4,708 | 4,553 | 4,546 | 155 | 3.4 | 3.6 |
| Government | 11,020 | 11,829 | 12,203 | -809 | -6.8 | -9.7 |
| Federal | 1,947 | 2,027 | 2,085 | -80 | -3.9 | -6.6 |
| State | 4,981 | 5,397 | 5,522 | -416 | -7.7 | -9.8 |
| Local | 4,092 | 4,406 | 4,597 | -314 | -7.1 | -11.0 |

Totals may not add due to rounding.

[1] 1987 Annual average based on 6 months of ES202 data and 6 months of estimated data.

pact on the construction industry as well.

While the level of construction employment remained relatively stable, the mix of employment within the industry changed dramatically. General construction and special trades construction were both down during 1987 while the heavy construction sector of the industry grew during the year. The drop in general and special trades construction reflects the weakness in the residential and commercial construction sectors. Very little new construction of commercial and residential space took place in 1987 because of the overbuilding, particularly in Juneau, in the early 80s. The surge in heavy construction reflects state and federal dollars spent to upgrade and maintain existing roads as well as construct new logging roads.

The **manufacturing** industry was Southeast Alaska's shining star in 1987, but the news wasn't all good from this industry. Good foreign exchange rates, particularly the fall of the dollar against the Japanese yen, and the fruition of cost cutting measures propelled the lumber and paper products industry to its highest annual employment total since 1980. The two largest employers in this industry, the pulp mills in Sitka and Ketchikan, enjoyed a year of increased production and employment. Sawmill and logging employment gains helped fueled the expansion in this industry.

On the other hand, a disastrous pink salmon run in southern Southeast Alaska put a severe crimp on peak employment in the seafood processing sector of manufacturing. August and September employment levels were off 25% to 30% from 1986, which translated into 700-800 jobs during those two months and about 140 jobs on an annual basis. Manufacturing employment in the region was severely handicapped by the loss of these jobs.

The other manufacturing sector, which is primarily printing and publishing, experienced very little change in employment during the year.

The **transportation** industry in Southeast Alaska has four major sectors; air transport, water transport, communications and utilities, and other transportation. In 1987 three out of the four sectors had employment growth but employment losses in the communications and utilities sector were so sharp that it offset most of the gains in the other three.

Air transportation is growing in response to increased traffic in the tourism industry. Growth in air transportation employment during 1987 was primarily in smaller air carriers that cater to Southeast's smaller communities or special groups such as air sightseers. The small carriers were not the only segment of air transportation that grew as larger carriers and airport ground services also experienced some employment growth. The other transportation sector, where ground transportation operators such as Westours are counted, also benefitted from the increase in tourism.

A portion of the employment increases in water transportation during the year are also attributable to increased tourism in Southeast Alaska. The fortunes of this industry, however, are most closely tied to the lumber and paper products sector. Since the wood products industry had another banner year of employment growth water transportation had some spinoff employment growth also.

Communications and utilities employment fell in Southeast Alaska by almost 90 jobs in 1987 due to drops in utilities related employment. Telephone communications was the biggest loser among this category but other utilities such as electric companies and electronic media were also had losses.

**Trade** and **services** employment increased slightly during the course of the year. In trade, the wholesale sector bounced back while some sectors of retail trade fell off. Eating and drinking establishment employment fell off but food store employment increased. This is probably due to two factors. People have been eating out less as their incomes have dropped. In addition, many food stores have added take-out delicatessen which is in direct competition with low cost eating and drinking establishments.

In services, hotel and motel employment increased on the strength of the summer tourist season. Several operators speculated that increased occupancy in Southeast hotels was due to efforts to market the region to the independent traveler. Medical services continues to be a growing component of the services industry. Some of the growth can be attributed to the emergence of the Southeast Alaska Regional Health Center (SEARHC) as a private provider of medical services to the region. Business and personal services grew slightly during the year but the largest category all other services fell of dramatically. This category includes services like engineers and architects which have contracted with the construction industry. It also includes membership organizations and clubs which in general are dependant upon discretionary spending and income that is not available as it was during the first half of the 80s.

**Finance, insurance, and real estate** and **government** were the largest employment losers in 1987. Finance-insurance and real estate struggled as the overall economy contracted. The absorption of Bank of the North by National Bank of Alaska as well as attrition has taken its toll on employment throughout the banking industry. The lone bright spot in finance-insurance and real estate may be the healthy outlook for many of the regions native corporations.

Government contracted in all three sectors with local and state government sectors of the region taking the brunt of the losses. Juneau in particular was hard hit by the drop in government. Federal government employment declined slightly in Southeast continuing a trend that established itself early in the decade. Local and state government dropped precipitously with the dramatic drop off in the state's oil revenue in 1986. Most of the employment drops in state and local government occurred with the beginning of the new state fiscal year in July of 1986 or were phased in during the course of the following 12 months. From June of 1986 to June of 1987 state and local government lost about 10% of its total combined employment, by December 1987 comparisons to the previous year were showing drops of less than 4%.

### Original Estimates Compared to Benchmark Estimates

As explained in greater detail in the following article of this issue of *Alaska Economic Trends*, revised employment estimates for 1986 and 1987 are the result of a procedure referred to as benchmarking. As a result of benchmarking, the revised employment numbers better indicate the economy's direction as well as the magnitude and dynamics of that direction.

Figure 1
Southeast Alaska Employment
Estimate vs. Benchmarked

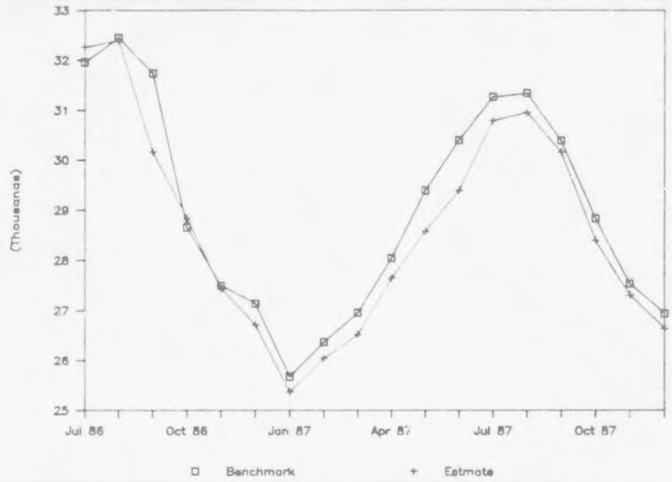


Figure 1 compares the original estimates to the estimates made after the benchmark. In general the original estimates were underestimated beginning with the first quarter of 1987. A combination of factors explains the difference between the two series. First of all sample data did not indicate the relative strength of the construction industry in Southeast Alaska during the year. Most year-to-year comparisons of establishment data projected constructions employment losses to be in the neighborhood of 10-15% over-the-year. The benchmark revisions upward were quite surprising especially given the weakness of construction industry employment on a statewide basis.

Another industry which outperformed the sample data was lumber and paper products. The employer sample data indicated a broad rally in this sector but the sample consists largely of well established firms. While these firms tended to grow at a rapid pace during the year their growth was outstripped by logging firms outside of the sample of employers.

# Revised Employment, Labor Force and Hours and Earnings

**By Edward W. Eboch**

At the first of each year, nonagricultural wage and salary employment estimates are revised for the preceding eighteen months by a procedure referred to as benchmarking. The revised employment estimates for 1987 have just been completed.

The monthly estimates of employment published in *Alaska Economic Trends* are based on a sample of employers. The most comprehensive count of nonagricultural wage and salary employment is based on unemployment insurance tax reports, commonly referred to as ES-202 data, however, there is a six to nine month lag in collection and publication of this information.

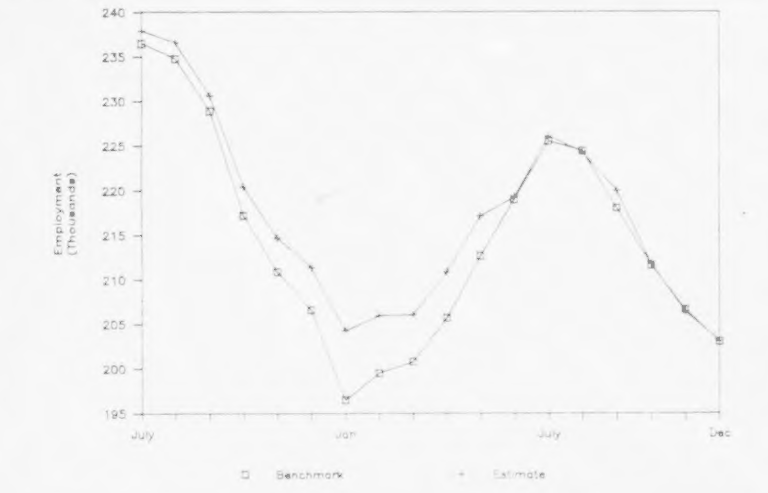
## Table 1
## Nonagricultural Wage and Salary Employment
## By Place of Work
## ALASKA
## 1987

| | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 196,600 | 199,300 | 200,800 | 205,500 | 212,600 | 219,100 | 225,600 | 224,400 | 217,900 | 211,700 | 206,500 | 203,100 | 210,300 |
| Mining | 7,900 | 7,900 | 7,900 | 8,300 | 8,500 | 9,000 | 8,900 | 8,800 | 8,800 | 8,800 | 8,400 | 8,200 | 8,500 |
| Construction | 8,800 | 8,700 | 8,800 | 9,200 | 10,500 | 11,900 | 12,500 | 13,300 | 12,600 | 11,900 | 10,100 | 8,800 | 10,600 |
| Manufacturing | 8,400 | 9,600 | 10,200 | 11,700 | 13,600 | 15,400 | 22,400 | 20,500 | 15,400 | 13,000 | 11,800 | 10,500 | 13,500 |
| Seafood Processing | 3,500 | 4,100 | 4,500 | 5,700 | 7,200 | 8,700 | 15,800 | 13,800 | 8,800 | 6,400 | 5,500 | 4,600 | 7,400 |
| Lumber & Paper Prod. | 1,800 | 2,300 | 2,500 | 2,900 | 3,100 | 3,300 | 3,200 | 3,300 | 3,300 | 3,300 | 3,100 | 2,800 | 2,900 |
| All Other Manufacturing | 3,100 | 3,200 | 3,200 | 3,100 | 3,300 | 3,400 | 3,400 | 3,400 | 3,300 | 3,300 | 3,200 | 3,100 | 3,300 |
| Transportation | 16,400 | 16,400 | 16,800 | 16,700 | 17,800 | 19,300 | 19,400 | 19,300 | 18,900 | 17,800 | 17,100 | 17,000 | 17,700 |
| Trucking & Warehousing | 2,100 | 2,000 | 2,200 | 2,200 | 2,400 | 2,600 | 2,700 | 2,600 | 2,500 | 2,500 | 2,400 | 2,400 | 2,400 |
| Water Transportation | 700 | 800 | 1,000 | 900 | 1,100 | 1,200 | 1,300 | 1,200 | 1,100 | 1,000 | 900 | 900 | 1,000 |
| Air Transportation | 4,900 | 4,900 | 4,900 | 5,000 | 5,300 | 5,700 | 5,700 | 5,800 | 5,500 | 5,300 | 5,200 | 5,200 | 5,300 |
| All Other Transportation | 8,700 | 8,700 | 8,700 | 8,600 | 9,000 | 9,800 | 9,700 | 9,700 | 9,800 | 9,000 | 8,600 | 8,500 | 9,100 |
| Trade | 38,700 | 38,400 | 38,400 | 39,200 | 41,300 | 43,400 | 43,900 | 44,600 | 43,700 | 41,800 | 41,700 | 41,400 | 41,400 |
| Wholesale | 7,200 | 7,200 | 7,200 | 7,200 | 7,400 | 7,600 | 7,700 | 7,600 | 7,300 | 7,300 | 7,300 | 7,300 | 7,400 |
| Retail | 31,500 | 31,200 | 31,200 | 32,000 | 33,900 | 35,800 | 36,200 | 37,000 | 36,400 | 34,500 | 34,400 | 34,100 | 34,000 |
| Gen.Mer.& Apparel | 4,600 | 4,400 | 4,400 | 4,400 | 4,700 | 5,100 | 5,100 | 5,300 | 5,200 | 5,100 | 5,300 | 5,400 | 4,900 |
| Food Stores | 5,500 | 5,500 | 5,600 | 5,600 | 5,900 | 6,000 | 6,000 | 6,100 | 6,200 | 6,000 | 6,000 | 6,000 | 5,900 |
| Eating & Drinking Pl | 11,400 | 11,400 | 11,400 | 11,800 | 12,600 | 13,700 | 13,900 | 14,300 | 13,900 | 12,400 | 12,200 | 11,800 | 12,600 |
| All Other Retail | 10,000 | 9,900 | 9,600 | 10,200 | 10,700 | 11,000 | 11,200 | 11,300 | 11,100 | 11,000 | 10,900 | 10,900 | 10,700 |
| Finance Ins. & R.E. | 11,400 | 11,400 | 11,300 | 11,300 | 11,300 | 11,400 | 11,300 | 11,100 | 11,000 | 10,900 | 10,800 | 10,800 | 11,200 |
| Services | 40,000 | 40,300 | 40,800 | 41,600 | 42,400 | 44,100 | 44,300 | 43,700 | 41,900 | 40,800 | 40,500 | 40,300 | 41,700 |
| Government | 65,000 | 66,600 | 66,600 | 67,500 | 67,200 | 64,600 | 62,900 | 63,100 | 65,600 | 66,700 | 66,100 | 66,100 | 65,700 |
| Federal | 17,000 | 17,000 | 17,100 | 17,600 | 18,000 | 18,400 | 18,500 | 18,600 | 18,500 | 18,400 | 18,300 | 18,300 | 18,000 |
| State | 18,100 | 19,200 | 19,300 | 19,500 | 18,400 | 18,200 | 17,800 | 18,200 | 18,900 | 19,500 | 19,000 | 18,700 | 18,700 |
| Local | 29,900 | 30,400 | 30,200 | 30,400 | 30,800 | 28,000 | 26,600 | 26,300 | 28,200 | 28,800 | 28,800 | 29,100 | 29,000 |

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987

Figure 1
Employment Estimate vs. Benchmarked



Current monthly employment is therefore estimated from a sample of firms willing to participate in the Current Employment Statistics (CES) program. The willingness of firms to provide data makes it possible to produce reliable estimates as to direction and magnitude of movements of nonagricultural wage and salary employment on a timely basis.

Revised estimates have been completed through December 1987. These employment numbers incorporate ES-202 data through June 1987. Employment has been reestimated from July 1987 to the end of the year using the new employment base and an improved sample.

There has been one change in the reported data. Beginning with these numbers the category food and kindred products in manufacturing has been changed to include only seafood processing employment. This category had traditionally been referred to as seafood processing employment when in fact it included a small number of employees in other food processing. Because of the interest of the seafood processing sector of the economy we now have a better count of seafood processing employment.

After lagging for the first half of 1987, the original estimates tracked the benchmarked employment numbers

## Table 2
## Nonagricultural Wage and Salary Employment
## By Place of Work
## ANCHORAGE
## 1987

| | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 98,300 | 98,550 | 99,100 | 100,350 | 101,800 | 103,650 | 103,500 | 103,550 | 103,050 | 101,300 | 99,950 | 99,700 | 101,100 |
| Mining | 3,150 | 3,150 | 3,250 | 3,300 | 3,200 | 3,250 | 3,150 | 3,200 | 3,200 | 3,300 | 3,200 | 3,100 | 3,200 |
| Construction | 4,650 | 4,650 | 4,700 | 4,850 | 5,450 | 6,200 | 6,550 | 6,950 | 6,550 | 6,300 | 5,450 | 4,800 | 5,600 |
| Manufacturing | 2,000 | 2,050 | 2,100 | 2,200 | 2,400 | 2,650 | 2,950 | 2,800 | 2,400 | 2,200 | 2,050 | 1,900 | 2,300 |
| Transportation | 8,750 | 8,750 | 9,000 | 9,000 | 9,550 | 10,150 | 9,950 | 9,950 | 10,050 | 9,550 | 9,300 | 9,200 | 9,400 |
| Trucking & Warehousing | 1,300 | 1,250 | 1,500 | 1,450 | 1,650 | 1,700 | 1,650 | 1,700 | 1,650 | 1,500 | 1,450 | 1,450 | 1,500 |
| Water Transportation | 200 | 250 | 250 | 300 | 350 | 350 | 350 | 300 | 300 | 300 | 250 | 250 | 300 |
| Air Transportation | 3,000 | 3,000 | 3,000 | 3,050 | 3,150 | 3,350 | 3,350 | 3,400 | 3,300 | 3,200 | 3,150 | 3,100 | 3,200 |
| All Other Transportation | 4,250 | 4,250 | 4,250 | 4,200 | 4,400 | 4,750 | 4,600 | 4,550 | 4,800 | 4,550 | 4,450 | 4,400 | 4,500 |
| Trade | 22,800 | 22,550 | 22,450 | 22,600 | 22,950 | 23,900 | 23,850 | 24,050 | 24,150 | 23,650 | 23,850 | 24,000 | 23,400 |
| Wholesale | 5,550 | 5,500 | 5,500 | 5,450 | 5,450 | 5,600 | 5,550 | 5,450 | 5,400 | 5,300 | 5,300 | 5,300 | 5,400 |
| Retail | 17,250 | 17,050 | 16,950 | 17,150 | 17,500 | 18,300 | 18,300 | 18,600 | 18,750 | 18,350 | 18,550 | 18,700 | 18,000 |
| Gen.Merch. & Apparel | 2,300 | 2,250 | 2,150 | 2,200 | 2,300 | 2,450 | 2,450 | 2,500 | 2,600 | 2,550 | 2,800 | 2,900 | 2,500 |
| Food Stores | 2,800 | 2,750 | 2,850 | 2,750 | 2,750 | 2,850 | 2,800 | 2,800 | 2,900 | 2,850 | 2,850 | 2,950 | 2,800 |
| Eating & Drinking Pl | 6,750 | 6,750 | 6,700 | 6,700 | 6,850 | 7,350 | 7,350 | 7,550 | 7,550 | 7,150 | 7,050 | 6,950 | 7,100 |
| All Other Retail | 5,400 | 5,300 | 5,250 | 5,500 | 5,600 | 5,650 | 5,700 | 5,750 | 5,700 | 5,800 | 5,850 | 5,900 | 5,600 |
| Finance-Ins. & R.E. | 7,700 | 7,650 | 7,600 | 7,600 | 7,550 | 7,600 | 7,600 | 7,350 | 7,250 | 7,200 | 7,100 | 7,150 | 7,400 |
| Services | 23,300 | 23,450 | 23,600 | 24,050 | 24,250 | 24,650 | 24,100 | 24,000 | 23,550 | 23,050 | 23,000 | 23,300 | 23,700 |
| Government | 25,950 | 26,400 | 26,400 | 26,750 | 26,450 | 25,250 | 25,350 | 25,250 | 25,900 | 26,050 | 26,000 | 26,250 | 26,000 |
| Federal | 10,050 | 10,050 | 10,100 | 10,200 | 10,300 | 10,450 | 10,700 | 10,700 | 10,650 | 10,500 | 10,450 | 10,550 | 10,400 |
| State | 6,450 | 6,900 | 6,950 | 7,000 | 6,550 | 6,450 | 6,300 | 6,350 | 6,750 | 6,950 | 6,950 | 7,000 | 6,700 |
| Local | 9,450 | 9,450 | 9,350 | 9,550 | 9,600 | 8,350 | 8,350 | 8,200 | 8,500 | 8,600 | 8,600 | 8,700 | 8,900 |

## Table 3
## Nonagricultural Wage and Salary Employment
## By Place of Work
## ANCHORAGE-MATSU
## 1987

| | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 104,650 | 105,050 | 105,600 | 106,750 | 108,400 | 110,500 | 110,000 | 110,100 | 109,550 | 107,900 | 106,350 | 105,850 | 107,600 |
| Mining | 3,150 | 3,150 | 3,250 | 3,300 | 3,200 | 3,250 | 3,150 | 3,200 | 3,200 | 3,300 | 3,200 | 3,100 | 3,200 |
| Construction | 4,900 | 4,850 | 4,900 | 5,100 | 5,700 | 6,500 | 6,800 | 7,300 | 6,800 | 6,500 | 5,650 | 4,950 | 5,800 |
| Manufacturing | 2,050 | 2,100 | 2,200 | 2,300 | 2,450 | 2,750 | 3,100 | 2,900 | 2,500 | 2,300 | 2,100 | 1,950 | 2,400 |
| Transportation | 9,450 | 9,450 | 9,650 | 9,700 | 10,250 | 10,800 | 10,650 | 10,600 | 10,700 | 10,250 | 9,900 | 9,800 | 10,100 |
| Trade | 24,350 | 24,150 | 24,050 | 24,150 | 24,700 | 25,650 | 25,600 | 25,800 | 25,850 | 25,300 | 25,450 | 25,550 | 25,100 |
| Finance-Ins. & R.E. | 8,150 | 8,100 | 8,100 | 8,050 | 8,000 | 8,050 | 8,050 | 7,800 | 7,700 | 7,650 | 7,550 | 7,600 | 7,900 |
| Services | 24,300 | 24,450 | 24,700 | 25,050 | 25,300 | 25,800 | 25,250 | 25,150 | 24,750 | 24,200 | 24,200 | 24,400 | 24,800 |
| Government | 28,300 | 28,800 | 28,750 | 29,100 | 28,800 | 27,700 | 27,400 | 27,350 | 28,050 | 28,400 | 28,300 | 28,500 | 28,300 |

fairly accurately from mid-1987 to the end of the year (Figure 1). A weakness in the sample based estimates in a declining economy is making an estimate of lost employment because of firms closing. While an adjustment was made in the estimates for this problem it was not sufficient to account for the rapid decline in the trade and services industries.

On an average annual basis, employment fell by 4.7% from 1986 to 1987, after falling by 4.4% the previous year. By late 1987 the over-the-year losses were moderating; the employment data suggesting that the worst is over for the economy. (For additional analysis of the past year see the Alaska article in this issue, "The Year in Review.")

While the latest unemployment rates supports this conclusion it certainly does not mean the economy is healthy. Preliminary population migration data indicates that Alaska had a net outmigration of about 20,000 people from mid-1985 to mid 1987. Additional net outmigration has occurred since that time although continued net outmigration seems unlikely as by historic standards there are sufficient jobs for the current labor force, although they may be in new occupations and at lower wages.

## Hours and Earnings Statistics

The hours and earning estimates are also based on the data from employers. The estimates are then adjusted to reflect the level of employment.

## Table 4
## Nonagricultural Wage and Salary Employment
## By Place of Work
## FAIRBANKS
## 1987

| | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 23,950 | 24,200 | 24,350 | 25,000 | 25,700 | 26,850 | 26,750 | 26,750 | 26,500 | 25,950 | 25,200 | 24,550 | 25,500 |
| Mining | 100 | 100 | 100 | 150 | 150 | 200 | 200 | 150 | 100 | 50 | 50 | 50 | 100 |
| Construction | 1,150 | 1,150 | 1,150 | 1,250 | 1,550 | 1,900 | 2,000 | 2,100 | 2,250 | 2,100 | 1,700 | 1,450 | 1,600 |
| Manufacturing | 500 | 500 | 500 | 500 | 500 | 550 | 600 | 600 | 600 | 600 | 500 | 500 | 500 |
| Transportation | 2,150 | 2,100 | 2,050 | 2,050 | 2,200 | 2,350 | 2,400 | 2,350 | 2,350 | 2,050 | 2,000 | 1,900 | 2,200 |
| Trucking & Warehousing | 350 | 350 | 350 | 350 | 350 | 350 | 400 | 350 | 350 | 350 | 350 | 300 | 400 |
| Air Transportation | 350 | 350 | 300 | 300 | 350 | 350 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| All Other Transportation | 1,450 | 1,400 | 1,400 | 1,400 | 1,500 | 1,650 | 1,700 | 1,700 | 1,700 | 1,400 | 1,350 | 1,300 | 1,500 |
| Trade | 4,850 | 4,800 | 4,850 | 5,200 | 5,650 | 6,050 | 5,850 | 5,800 | 5,750 | 5,550 | 5,550 | 5,500 | 5,500 |
| Wholesale | 750 | 750 | 750 | 750 | 750 | 800 | 800 | 700 | 700 | 750 | 700 | 700 | 700 |
| Retail | 4,100 | 4,050 | 4,100 | 4,450 | 4,900 | 5,250 | 5,050 | 5,100 | 5,050 | 4,800 | 4,850 | 4,800 | 4,700 |
| Food Stores | 650 | 650 | 650 | 700 | 700 | 700 | 700 | 850 | 850 | 850 | 850 | 850 | 800 |
| All Other Retail | 3,450 | 3,400 | 3,450 | 3,750 | 4,200 | 4,550 | 4,350 | 4,250 | 4,200 | 3,950 | 4,000 | 3,950 | 4,000 |
| Finance-Ins. & R.E. | 650 | 900 | 900 | 900 | 900 | 950 | 950 | 950 | 950 | 900 | 900 | 900 | 900 |
| Services | 5,300 | 5,350 | 5,400 | 5,400 | 5,500 | 5,900 | 6,000 | 5,950 | 5,550 | 5,350 | 5,250 | 5,200 | 5,500 |
| Government | 8,950 | 9,300 | 9,400 | 9,550 | 9,250 | 8,950 | 8,750 | 8,850 | 8,950 | 9,350 | 9,250 | 9,050 | 9,100 |
| Federal | 2,650 | 2,700 | 2,700 | 2,850 | 2,950 | 3,000 | 3,000 | 2,950 | 2,850 | 2,800 | 2,750 | 2,750 | 2,800 |
| State | 3,600 | 3,900 | 3,950 | 3,950 | 3,550 | 3,400 | 3,300 | 3,550 | 3,700 | 4,050 | 4,000 | 3,800 | 3,700 |
| Local | 2,700 | 2,700 | 2,750 | 2,750 | 2,750 | 2,550 | 2,450 | 2,350 | 2,400 | 2,500 | 2,500 | 2,500 | 2,600 |

## Table 5
## Nonagricultural Wage and Salary Employment
## By Place of Work
## INTERIOR
## 1987

| | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 27,300 | 27,600 | 27,750 | 28,750 | 29,950 | 31,150 | 30,950 | 31,050 | 30,850 | 30,000 | 28,950 | 28,100 | 29,400 |
| Mining | 200 | 200 | 200 | 250 | 300 | 350 | 350 | 300 | 250 | 200 | 200 | 200 | 300 |
| Construction | 1,250 | 1,200 | 1,250 | 1,400 | 1,750 | 2,100 | 2,250 | 2,400 | 2,500 | 2,300 | 1,800 | 1,500 | 1,800 |
| Manufacturing | 500 | 500 | 500 | 500 | 550 | 600 | 600 | 600 | 600 | 600 | 550 | 500 | 600 |
| Transportation | 2,400 | 2,400 | 2,400 | 2,400 | 2,550 | 2,750 | 2,800 | 2,750 | 2,700 | 2,450 | 2,250 | 2,200 | 2,500 |
| Trade | 5,100 | 5,050 | 5,100 | 5,500 | 6,100 | 6,500 | 6,350 | 6,350 | 6,200 | 5,900 | 5,900 | 5,850 | 5,800 |
| Finance-Ins. & R.E. | 1,000 | 1,000 | 950 | 950 | 1,000 | 1,050 | 1,050 | 1,050 | 1,000 | 1,000 | 950 | 950 | 1,000 |
| Services | 5,700 | 5,750 | 5,800 | 5,900 | 6,000 | 6,600 | 6,700 | 6,650 | 6,150 | 5,750 | 5,650 | 5,500 | 6,000 |
| Government | 11,150 | 11,500 | 11,550 | 11,850 | 11,700 | 11,200 | 10,850 | 10,950 | 11,450 | 11,800 | 11,650 | 11,400 | 11,400 |

When the employment data are benchmarked, the hours and earnings are reviewed to see if additional sample or changes in employment levels from earlier estimates have changed the estimates for hours and earnings.

As is usually the case, hours and earnings estimates have changed, primarily as a result of additional firms in our sample, but also because benchmarked estimates of employment have also changed. Note that the ES-202 data does not lend itself to estimates of average weekly hours and earnings, important indicators to the direction of the economy. Increasing average weekly hours usually indicate an expanding economy, leading to a future increase in employment, whereas declining average weekly hours usually indicate that the economy is contracting and that employment will decline. The benchmarked hours and earnings data also suggest that Alaska's economy has bottomed out.

### Labor Force Statistics

Labor force statistics are also benchmarked in January using the new nonagricultural wage and salary numbers as well as other updated data. The employment numbers in the

## Table 6
## Nonagricultural Wage and Salary Employment
## By Place of Work
## SOUTHEAST ALASKA
## 1987

| | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 25,650 | 26,350 | 27,050 | 28,050 | 29,300 | 30,450 | 31,250 | 31,350 | 30,400 | 28,900 | 27,450 | 26,950 | 28,600 |
| Construction | 850 | 950 | 1,000 | 1,050 | 1,200 | 1,250 | 1,250 | 1,300 | 1,200 | 1,100 | 1,000 | 850 | 1,100 |
| Manufacturing | 2,500 | 2,950 | 3,150 | 3,800 | 4,200 | 4,700 | 5,350 | 5,500 | 4,900 | 4,550 | 3,900 | 3,600 | 4,100 |
| Seafood Processing | 600 | 600 | 550 | 800 | 1,000 | 1,300 | 2,000 | 2,100 | 1,550 | 1,250 | 700 | 700 | 1,100 |
| Lumber & Paper Prod | 1,700 | 2,150 | 2,400 | 2,800 | 3,000 | 3,150 | 3,100 | 3,200 | 3,150 | 3,100 | 3,000 | 2,700 | 2,800 |
| All Other Manufacturing | 200 | 200 | 200 | 200 | 200 | 250 | 250 | 200 | 200 | 200 | 200 | 200 | 200 |
| Transportation | 1,750 | 1,800 | 2,000 | 1,900 | 2,100 | 2,500 | 2,450 | 2,450 | 2,350 | 2,000 | 1,900 | 1,950 | 2,100 |
| Trade | 4,100 | 4,050 | 4,200 | 4,300 | 4,650 | 4,950 | 5,050 | 5,100 | 4,900 | 4,500 | 4,300 | 4,300 | 4,500 |
| Wholesale | 350 | 350 | 400 | 400 | 400 | 400 | 450 | 450 | 400 | 400 | 350 | 350 | 400 |
| Retail | 3,750 | 3,700 | 3,800 | 3,900 | 4,250 | 4,550 | 4,600 | 4,650 | 4,500 | 4,100 | 3,950 | 3,950 | 4,100 |
| Finance-Ins. R.E. | 1,050 | 1,050 | 1,050 | 1,050 | 1,050 | 1,050 | 1,100 | 1,100 | 1,100 | 1,000 | 1,000 | 1,050 | 1,100 |
| Services | 4,300 | 4,300 | 4,400 | 4,550 | 4,750 | 5,000 | 5,050 | 5,000 | 4,900 | 4,600 | 4,450 | 4,250 | 4,600 |
| Government | 11,050 | 11,200 | 11,200 | 11,350 | 11,300 | 10,900 | 10,900 | 10,800 | 10,950 | 11,000 | 10,800 | 10,850 | 11,000 |
| Federal | 1,850 | 1,800 | 1,850 | 1,900 | 1,950 | 2,050 | 2,050 | 2,050 | 2,050 | 2,000 | 1,900 | 1,900 | 1,900 |
| State | 5,000 | 5,100 | 5,100 | 5,150 | 5,050 | 4,950 | 4,950 | 4,900 | 4,950 | 5,000 | 4,850 | 4,800 | 5,000 |
| Local | 4,200 | 4,300 | 4,250 | 4,300 | 4,300 | 3,900 | 3,900 | 3,850 | 3,950 | 4,000 | 4,050 | 4,150 | 4,100 |

## Table 7
## Nonagricultural Wage and Salary Employment
## By Place of Work
## GULF COAST
## 1987

| | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 16,650 | 17,250 | 17,600 | 18,350 | 20,200 | 21,100 | 23,850 | 23,800 | 20,850 | 19,650 | 18,850 | 18,200 | 19,700 |
| Mining | 700 | 650 | 650 | 700 | 800 | 800 | 800 | 900 | 950 | 850 | 850 | 850 | 800 |
| Construction | 850 | 850 | 850 | 850 | 1,000 | 1,100 | 1,250 | 1,300 | 1,250 | 1,250 | 950 | 800 | 1,000 |
| Manufacturing | 1,950 | 2,350 | 2,650 | 3,100 | 3,950 | 4,250 | 7,250 | 7,000 | 4,250 | 3,550 | 3,400 | 3,000 | 3,900 |
| Seafood Processing | 1,350 | 1,750 | 2,050 | 2,500 | 3,350 | 3,650 | 6,650 | 6,400 | 3,650 | 2,950 | 2,800 | 2,400 | 3,300 |
| All Other Manufacturing | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| Transportation | 1,200 | 1,250 | 1,250 | 1,250 | 1,300 | 1,400 | 1,400 | 1,350 | 1,350 | 1,300 | 1,250 | 1,300 | 1,300 |
| Trade | 3,150 | 3,100 | 3,150 | 3,350 | 3,800 | 4,100 | 4,050 | 3,950 | 3,650 | 3,500 | 3,450 | 3,400 | 3,600 |
| Wholesale | 400 | 400 | 450 | 500 | 550 | 650 | 650 | 600 | 500 | 400 | 400 | 400 | 500 |
| Retail | 2,750 | 2,700 | 2,700 | 2,850 | 3,250 | 3,450 | 3,400 | 3,350 | 3,150 | 3,100 | 3,050 | 3,000 | 3,100 |
| Finance-Ins. & R.E. | 600 | 600 | 600 | 550 | 550 | 600 | 600 | 600 | 600 | 600 | 600 | 550 | 600 |
| Services | 2,950 | 3,000 | 3,000 | 3,100 | 3,350 | 3,550 | 3,600 | 3,650 | 3,400 | 3,150 | 3,100 | 3,050 | 3,200 |
| Government | 5,250 | 5,450 | 5,450 | 5,450 | 5,450 | 5,300 | 4,900 | 5,050 | 5,400 | 5,450 | 5,250 | 5,250 | 5,300 |
| Federal | 500 | 500 | 500 | 500 | 550 | 600 | 600 | 600 | 600 | 550 | 500 | 500 | 500 |
| State | 1,400 | 1,500 | 1,500 | 1,550 | 1,450 | 1,450 | 1,450 | 1,500 | 1,600 | 1,600 | 1,400 | 1,450 | 1,500 |
| Local | 3,350 | 3,450 | 3,450 | 3,400 | 3,450 | 3,250 | 2,850 | 2,950 | 3,200 | 3,300 | 3,350 | 3,300 | 3,300 |

labor force table differ from the nonagricultural wage and salary numbers because of the methodology used in making estimates. Nonagricultural wage and salary employment is considered the better indicator of changes in employment whereas the labor force data is considered the better measure of job prospects and the current hardships of people looking for work.

Unemployment can increase in a rapidly expanding economy as well as a rapidly declining economy. This occurred in Alaska in the 1980s. When the economy was expanding, people rushed to Alaska, increasing the number of unemployed until they found jobs. The effect was a rapidly expanding labor force, increasing numbers of unemployed.

In early 1987, the unemployment rate increased dramatically. As 1987 progressed, the unemployment rate declined to levels normally associated with a stable Alaska economy, one more sign of a bottoming economic downturn.

## Table 8
## Average Weekly Earnings
## 1987

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mining | $1,197.84 | $1,170.18 | $1,119.55 | $1,156.76 | $1,126.17 | $1,125.19 | $1,090.68 | $1,060.34 | $1,078.52 | $1,096.93 | $1,134.48 | $1,201.18 | $1,128.68 |
| Construction | 884.14 | 892.80 | 887.73 | 950.02 | 957.59 | 1,002.71 | 1,017.56 | 1,093.11 | 957.12 | 990.07 | 841.98 | 891.33 | 958.81 |
| Manufacturing | 466.32 | 510.14 | 520.38 | 541.08 | 508.04 | 488.99 | 458.72 | 524.39 | 496.87 | 506.46 | 511.52 | 542.03 | 503.49 |
| Lumber & Paper | 539.98 | 643.14 | 624.25 | 670.77 | 721.18 | 662.20 | 580.78 | 716.45 | 682.56 | 732.79 | 662.15 | 683.99 | 665.98 |
| Seafood Processing | 213.82 | 273.60 | 319.50 | 366.08 | 319.49 | 334.27 | 390.95 | 435.86 | 347.27 | 284.97 | 311.81 | 308.85 | 349.14 |
| Transportation | 584.37 | 573.05 | 546.87 | 565.44 | 570.02 | 558.96 | 584.07 | 575.24 | 579.74 | 581.57 | 585.10 | 567.00 | 572.63 |
| Trade | 355.38 | 367.50 | 360.91 | 384.75 | 361.86 | 377.9 | 381.98 | 371.13 | 365.04 | 356.64 | 350.12 | 345.83 | 364.68 |
| Wholesale | 480.48 | 511.00 | 497.07 | 535.22 | 505.59 | 522.72 | 534.71 | 525.10 | 517.59 | 520.97 | 511.54 | 529.15 | 516.30 |
| Retail | 312.48 | 316.63 | 312.00 | 332.19 | 313.14 | 329.00 | 329.31 | 320.13 | 315.88 | 303.32 | 298.04 | 286.60 | 313.92 |
| Finance, Ins. & R.E. | $ 388.28 | $ 409.22 | $ 379.95 | $ 389.99 | $ 379.22 | $ 380.14 | $ 381.90 | $ 391.40 | $ 387.77 | $ 394.45 | $ 407.86 | $ 390.10 | $ 389.90 |

## Table 9
## Average Weekly Hours
## 1987

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mining | 49.6 | 49.5 | 47.6 | 48.4 | 47.8 | 48.9 | 48.8 | 47.4 | 47.2 | 47.2 | 48.9 | 49.8 | 48.4 |
| Construction | 37.4 | 38.4 | 38.1 | 39.7 | 39.8 | 41.4 | 42.1 | 43.9 | 38.3 | 40.1 | 35.2 | 36.5 | 39.6 |
| Manufacturing | 33.5 | 40.2 | 42.9 | 43.6 | 42.8 | 42.3 | 47.0 | 48.6 | 40.2 | 39.2 | 39.9 | 40.3 | 42.7 |
| Lumber & Paper | 38.0 | 43.9 | 41.7 | 43.5 | 46.2 | 43.0 | 38.9 | 44.5 | 43.2 | 45.6 | 42.5 | 42.3 | 43.0 |
| Seafood Processing | 26.3 | 38.0 | 45.0 | 44.0 | 41.6 | 42.1 | 49.3 | 50.8 | 38.5 | 35.4 | 38.4 | 38.8 | 43.1 |
| Transportation | 36.5 | 36.2 | 34.7 | 36.2 | 36.1 | 35.9 | 36.3 | 36.5 | 36.6 | 36.6 | 36.5 | 36.0 | 36.2 |
| Trade | 33.4 | 33.5 | 32.9 | 34.2 | 32.6 | 34.9 | 35.5 | 34.3 | 33.8 | 33.3 | 32.6 | 32.2 | 33.6 |
| Wholesale | 39.0 | 38.8 | 37.6 | 38.7 | 38.1 | 39.6 | 41.1 | 39.6 | 38.8 | 39.2 | 38.9 | 38.4 | 39.0 |
| Retail | 31.5 | 31.6 | 31.2 | 32.6 | 30.7 | 33.3 | 33.5 | 32.5 | 33.2 | 31.4 | 30.6 | 30.2 | 31.8 |
| Finance, Ins. & R.E. | 34.3 | 35.4 | 33.3 | 34.3 | 33.5 | 33.2 | 33.5 | 33.8 | 33.4 | 33.4 | 35.1 | 34.1 | 33.9 |

## Table 10
## Average Hourly Earnings
## 1987

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mining | $24.15 | $23.64 | $23.52 | $23.90 | $23.56 | $23.01 | $22.35 | $22.37 | $22.85 | $23.24 | $23.20 | $24.12 | $23.31 |
| Construction | 23.64 | 23.25 | 23.30 | 23.93 | 24.06 | 24.22 | 24.17 | 24.90 | 24.99 | 24.69 | 23.92 | 24.42 | 24.22 |
| Manufacturing | 13.92 | 12.69 | 12.13 | 12.41 | 11.87 | 11.56 | 9.76 | 10.79 | 12.36 | 12.92 | 12.82 | 13.45 | 11.79 |
| Lumber & Paper | 14.21 | 14.65 | 14.97 | 15.42 | 15.61 | 15.40 | 14.93 | 16.10 | 15.80 | 16.07 | 15.58 | 16.17 | 15.50 |
| Seafood Processing | 8.13 | 7.20 | 7.10 | 8.32 | 7.68 | 7.94 | 7.93 | 8.58 | 9.02 | 8.05 | 8.12 | 7.96 | 8.11 |
| Transportation | 16.01 | 15.83 | 15.76 | 15.62 | 15.79 | 15.57 | 16.09 | 15.76 | 15.84 | 15.89 | 16.03 | 15.75 | 15.83 |
| Trade | 10.64 | 10.97 | 10.97 | 11.25 | 11.10 | 10.83 | 10.76 | 10.82 | 10.80 | 10.71 | 10.74 | 10.74 | 10.85 |
| Wholesale | 12.32 | 13.17 | 13.22 | 13.83 | 13.27 | 13.20 | 13.01 | 13.26 | 13.34 | 13.29 | 13.15 | 13.78 | 13.23 |
| Retail | 9.92 | 10.02 | 10.00 | 10.19 | 10.20 | 9.88 | 9.83 | 9.85 | 9.81 | 9.66 | 9.74 | 9.49 | 9.88 |
| Finance, Ins. & R.E. | $11.32 | $11.56 | $11.41 | $11.37 | $11.32 | $11.45 | $11.40 | $11.58 | $11.61 | $11.81 | $11.62 | $11.44 | $11.49 |

Benchmark March 1987

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] Excluded eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES. Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours

## Table 11
## Alaska
## Unemployment Rates
## by Region and Census Area
## 1987

| | Jan | Feb | March | April | May | June | July | Aug | Sep | Oct | Nov | Dec | 1987 Annual Average | 1986 Annual Average | 1985 Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alaska Statewide | 13.1% | 13.3% | 13.4% | 12.5% | 11.5% | 11.0% | 9.5% | 8.9% | 8.5% | 9.2% | 9.8% | 10.0% | 10.8% | 10.9% | 9.6% |
| Anch-MatSu Region | 10.9 | 11.2 | 11.5 | 11.1 | 10.4 | 9.8 | 8.9 | 8.5 | 8.0 | 8.4 | 8.9 | 8.5 | 9.7 | 9.5 | 8.3 |
| Anchorage Borough | 9.5 | 9.9 | 10.2 | 9.8 | 9.3 | 8.7 | 7.7 | 7.4 | 7.1 | 7.3 | 7.6 | 7.3 | 8.5 | 8.4 | 7.2 |
| MatSu Borough | 21.1 | 21.0 | 21.4 | 20.8 | 19.0 | 18.2 | 17.9 | 16.4 | 15.0 | 16.3 | 18.5 | 17.4 | 18.6 | 18.3 | 15.9 |
| Gulf Coast Region | 18.7 | 18.5 | 18.0 | 16.2 | 13.2 | 12.9 | 10.2 | 9.1 | 9.9 | 11.8 | 11.9 | 13.1 | 13.4 | 14.3 | 12.0 |
| Kenai Peninsula Borough | 21.7 | 21.7 | 21.1 | 19.5 | 15.8 | 15.3 | 12.9 | 11.4 | 12.3 | 14.6 | 14.8 | 15.4 | 16.1 | 17.0 | 13.8 |
| Kodiak Island Borough | 9.9 | 7.8 | 7.3 | 6.4 | 6.8 | 7.7 | 4.6 | 3.9 | 4.2 | 4.8 | 5.0 | 6.6 | 6.1 | 7.9 | 8.4 |
| Valdez-Cordova | 18.1 | 19.1 | 19.4 | 15.1 | 10.9 | 9.5 | 6.7 | 6.6 | 7.6 | 9.4 | 9.6 | 12.6 | 11.7 | 11.6 | 9.7 |
| Interior Region | 17.7 | 18.4 | 17.7 | 16.9 | 15.9 | 14.8 | 12.6 | 12.0 | 11.1 | 12.2 | 13.1 | 13.9 | 14.6 | 14.5 | 12.3 |
| Fairbanks North Star Bor. | 17.0 | 17.5 | 16.8 | 16.1 | 15.1 | 14.1 | 12.2 | 11.7 | 11.0 | 11.9 | 12.6 | 13.3 | 14.0 | 14.3 | 12.0 |
| Southeast Fairbanks | 19.5 | 20.4 | 20.0 | 18.9 | 17.2 | 15.4 | 12.4 | 12.7 | 11.3 | 12.9 | 15.0 | 15.7 | 15.9 | 15.3 | 12.6 |
| Yukon-Koyukuk | 23.6 | 25.3 | 25.8 | 23.8 | 22.7 | 22.1 | 17.1 | 15.4 | 12.6 | 14.9 | 16.6 | 18.3 | 19.9 | 16.7 | 15.8 |
| Northern Region | 11.1 | 12.3 | 13.7 | 12.3 | 13.2 | 14.9 | 12.2 | 11.1 | 8.6 | 6.8 | 9.4 | 9.7 | 11.3 | 11.4 | 11.2 |
| Nome | 10.5 | 14.6 | 16.4 | 14.5 | 15.3 | 16.3 | 13.4 | 12.8 | 10.5 | 7.6 | 10.8 | 11.5 | 12.9 | 13.5 | 11.9 |
| North Slope Borough | 7.0 | 5.8 | 7.2 | 5.8 | 7.1 | 8.1 | 6.1 | 5.6 | 4.0 | 3.5 | 4.8 | 5.8 | 5.9 | 6.0 | 8.8 |
| Northwest Arctic Borough | 17.1 | 17.3 | 18.1 | 17.4 | 18.1 | 21.4 | 18.3 | 15.7 | 12.0 | 10.2 | 13.2 | 12.5 | 16.0 | 15.3 | 13.4 |
| Southeast Region | 14.4 | 13.6 | 13.4 | 10.4 | 9.2 | 8.7 | 7.7 | 7.0 | 6.9 | 7.9 | 9.0 | 9.8 | 9.7 | 10.2 | 10.2 |
| Haines Borough | 21.4 | 19.0 | 19.3 | 12.9 | 11.8 | 10.8 | 9.6 | 8.6 | 7.2 | 9.7 | 13.0 | 14.5 | 13.1 | 13.6 | 13.7 |
| Juneau Borough | 9.3 | 8.9 | 9.2 | 7.9 | 7.2 | 6.7 | 7.2 | 6.6 | 6.0 | 5.9 | 6.7 | 6.6 | 7.3 | 8.5 | 7.9 |
| Ketchikan Gateway Bor. | 14.5 | 12.6 | 13.3 | 11.2 | 10.0 | 9.6 | 7.0 | 6.7 | 6.9 | 8.1 | 8.5 | 8.7 | 9.7 | 10.7 | 10.6 |
| Pr. of Wales-Outer Ketchikan | 24.4 | 22.9 | 19.9 | 16.0 | 14.0 | 13.8 | 10.7 | 9.7 | 11.6 | 12.8 | 13.9 | 14.4 | 15.2 | 14.5 | 14.3 |
| Sitka Borough | 9.5 | 11.0 | 10.2 | 9.0 | 8.7 | 7.7 | 7.2 | 6.1 | 6.4 | 7.8 | 9.8 | 9.6 | 8.5 | 8.7 | 9.8 |
| Skagway-Yakutat-Angoon | 28.1 | 27.9 | 26.4 | 16.4 | 12.6 | 10.5 | 11.0 | 10.4 | 10.8 | 14.5 | 17.6 | 22.8 | 17.5 | 16.9 | 17.9 |
| Wrangell-Petersburg | 23.3 | 21.4 | 21.0 | 13.8 | 11.5 | 11.0 | 7.6 | 6.4 | 6.1 | 9.1 | 10.4 | 14.3 | 13.0 | 11.3 | 12.1 |
| Southwest Region | 9.5 | 10.2 | 11.3 | 10.9 | 9.8 | 11.2 | 7.0 | 7.1 | 7.2 | 7.9 | 6.8 | 8.2 | 8.9 | 8.5 | 7.9 |
| Aleutian Island | 4.7 | 4.2 | 4.5 | 4.6 | 4.1 | 4.4 | 2.5 | 2.6 | 3.1 | 3.4 | 2.9 | 3.2 | 3.6 | 3.4 | 2.6 |
| Bethel | 9.7 | 10.3 | 12.1 | 12.2 | 11.9 | 14.3 | 10.0 | 9.9 | 9.5 | 9.2 | 7.8 | 9.0 | 10.5 | 10.3 | 9.9 |
| Bristol Bay Borough | 17.4 | 18.3 | 17.0 | 11.8 | 7.6 | 6.3 | 3.5 | 4.5 | 6.4 | 13.7 | 12.2 | 13.3 | 10.8 | 8.9 | 7.9 |
| Dillingham | 10.8 | 13.0 | 13.5 | 12.5 | 10.8 | 10.6 | 4.3 | 4.3 | 5.0 | 7.7 | 7.2 | 8.5 | 8.8 | 8.0 | 7.1 |
| Wade Hampton | 15.5 | 16.7 | 18.6 | 18.2 | 15.2 | 18.1 | 12.3 | 12.6 | 12.5 | 12.2 | 10.8 | 14.8 | 14.7 | 14.1 | 13.7 |

A note to the data user: Tables 1-7 and 11 replace all previously published employment and unemployment data for 1987. Revisions of these data series were also made to the last half of 1986. To obtain a complete set of revised data for 1986, contact Research and Analysis, Labor Market Information Unit. Hours and earnings data (Tables 8, 9, and 10 were only revised for 1987.

# Alaska's Employment Scene

By Brian Rae

Followers of Alaska's economy have heard it before—conjecture that the economy has "hit bottom." Predictions that the value of Alaska's resources, and the state's income, will stabilize at or above their current levels. Promises that more money will be spent in 1988 for development than was spent in 1987. These followers also know that prophecies can be hit by forces similar to those that blindsided Alaska's economy in 1986.

Given these caveats, there are positive signs which were nonexistent a few months ago. The recent bust caused a Darwinian selection process throughout Alaska's businesses. The fit survivors, some leaner than before, have retrenched and should be better able to withstand future economic shakeups. For the short term, business decisions will probably be approached with more focus towards economic reality and less tendency to ride the tide of the business cycle.

These survivors, for the most part, express optimism towards the state's future. Such prophecies, when held by the major players in any arena, are usually self-fulfilling. Amplified by seasonal upturns experienced by our economy during the spring and promises of major investments during the next year, January's employment scene may well indicate the beginning of the state's economic turnaround. The factors most often monitored by economic forecasters are indicating this swing—if we can avoid those external forces which can blindside the economy.

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

|  | p/<br>1/88 | r/<br>12/87 | 1/87 | Changes From:<br>12/87 | 1/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 196,000 | 203,100 | 196,600 | -7,100 | -600 |
| Mining | 8,200 | 8,200 | 7,900 | 0 | 300 |
| Construction | 7,600 | 8,800 | 8,800 | -1,200 | -1,200 |
| Manufacturing | 11,000 | 10,500 | 8,400 | 500 | 2,600 |
| Seafood Processing | 5,900 | 4,600 | 3,500 | 1,300 | 2,400 |
| Lumber & Paper Prod. | 2,200 | 2,800 | 1,800 | -600 | 400 |
| All Other Manufacturing | 2,900 | 3,100 | 3,100 | -200 | -200 |
| Transportation | 16,600 | 17,000 | 16,400 | -400 | 200 |
| Trucking & Warehousing | 2,400 | 2,400 | 2,100 | 0 | 300 |
| Water Transportation | 800 | 900 | 700 | -100 | 100 |
| Air Transportation | 5,100 | 5,200 | 4,900 | -100 | 200 |
| All Other Transportation | 8,300 | 8,500 | 8,700 | -200 | -400 |
| Trade | 38500 | 41,400 | 38,700 | -2,900 | -200 |
| Wholesale | 7,000 | 7,300 | 7,200 | -300 | -200 |
| Retail | 31,500 | 34,100 | 31,500 | -2,600 | 0 |
| Gen. Mer & Apparel | 4,600 | 5,400 | 4,600 | -800 | 0 |
| Food Stores | 5,700 | 6,000 | 5,500 | -300 | 200 |
| Eating & Drinking Pl. | 10,900 | 11,800 | 11,400 | -900 | -500 |
| All Other Retail | 10,300 | 10,900 | 10,000 | -600 | 300 |
| Finance-Ins. & R.E. | 10,700 | 10,800 | 11,400 | -100 | -700 |
| Services | 39,400 | 40,300 | 40,000 | -900 | -600 |
| Government | 64,000 | 66,100 | 65,000 | -2,100 | -1,000 |
| Federal | 17,900 | 18,300 | 17,000 | -400 | 900 |
| State | 18,000 | 18,700 | 18,100 | -700 | -100 |
| Local | 28,100 | 29,100 | 29,900 | -1,000 | -1,800 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date 1987

p/ Denotes Preliminary Estimates
r/ Denotes Revised Estimates

## Industry Employment

Alaska's **construction industry** employment experienced the largest percentage losses both over-the-month and over-the-year of any industry, at 13.2% and 13.5%, respectively. (See Table 1) Hourly earnings were down seventy cents, while weekly hours dropped 1.2 hours. (See Table 8) The entire industry showed weaknesses over the year except in one area. Heavy construction showed moderate employment increases for the year, though its highly seasonal nature contributed to a 21% decrease over the month. Reflecting the weakened condition of the economy, general construction employment posted a 25% decrease over the year, which impacted other areas of the economy.

Although the drop in wages might indicate otherwise, the **manufacturing** sector is quite strong compared to a year ago. **Seafood processing** employment increased 29% over-the-month and 67% for the year. This was accompanied by a 1.8 hour per week increase over-the-month and a 14.3 hour increase for the year. Weekly hours have been increasing in this industry since October. Historically, seafood processing employment experiences extreme drops in the winter. This season, processors over a large geographic area are handling a wide variety of products. Bait herring and crab kept Southeast processors busy during January, while Gulf Coast and Southwest processed crab and bottomfish. Some processors, to provide year round employment, are using the slower winter months for final packaging, labeling, and shipping of their canned products.

For those areas where seafood processing is the major industry, unemployment rates actually declined between December and January, in contrast to the statewide unemployment rate which increase to 10.8%. Average hourly earnings preliminary estimates for this industry show a better than 50 cent/hour average increase over the month.

**Lumber and paper products** employment jumped 17.6% from January 1987. This increase is even more impressive when one considers the 23.7% employment loss over-the-month. Accordingly, both weekly hours and hourly earnings showed heavy losses when compared with December, with weekly earnings falling by $170. This loss is both a normal seasonal downturn combined with harsh weather related shutdowns. Still, wages are higher than a year ago, and the outlook for this industry is good. Possible expansion into Southcentral Alaska, though

## Table 2
## Nonagricultural Wage and Salary Employment
## By Place of Work
## Anchorage

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 1/88 | r/ 12/87 | 1/87 | 12/87 | 1/87 |
| Nonag. Wage & Salary | 95,950 | 99,700 | 98,300 | -3,750 | -2,350 |
| Mining | 3,200 | 3,100 | 3,150 | 100 | 50 |
| Construction | 4,100 | 4,800 | 4,650 | -700 | -550 |
| Manufacturing | 1,800 | 1,900 | 2,000 | -100 | -200 |
| Transportation | 8,850 | 9,200 | 8,750 | -350 | 100 |
| Trucking & Warehousing | 1,350 | 1,450 | 1,300 | -100 | 50 |
| Water Transportation | 200 | 250 | 200 | -50 | 0 |
| Air Transportation | 3,000 | 3,100 | 3,000 | -100 | 0 |
| All Other Transportation | 4,300 | 4,400 | 4,250 | -100 | 50 |
| Trade | 22,450 | 24,000 | 22,800 | -1,550 | -350 |
| Wholesale | 5,150 | 5,300 | 5,550 | -150 | -400 |
| Retail | 17,300 | 18,700 | 17,250 | -1,400 | 50 |
| Gen. Merch. & Apparel | 2,350 | 2,900 | 2,300 | -550 | 50 |
| Food Stores | 2,950 | 2,950 | 2,800 | 0 | 150 |
| Eating & Drinking Pl. | 6,500 | 6,950 | 6,750 | -450 | -250 |
| All Other Retail | 5,500 | 5,900 | 5,400 | -400 | 100 |
| Finance-Ins. & R.E. | 7,050 | 7,150 | 7,700 | -100 | -650 |
| Services | 22,950 | 23,300 | 23,300 | -350 | -350 |
| Government | 25,550 | 26,250 | 25,950 | -700 | -400 |
| Federal | 10,550 | 10,550 | 10,050 | 0 | 500 |
| State | 6,350 | 7,000 | 6,450 | -650 | -100 |
| Local | 8,650 | 8,700 | 9,450 | -50 | -800 |

## Table 3
## Nonagricultural Wage and Salary Employment
## By Place of Work
## Anchorage-MatSu

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 1/88 | r/ 12/87 | 1/87 | 12/87 | 1/87 |
| Nonag. Wage & Salary | 102,200 | 105,850 | 104,650 | -3,650 | -2,450 |
| Mining | 3,200 | 3,100 | 3,150 | 100 | 50 |
| Construction | 4,300 | 4,950 | 4,900 | -650 | -600 |
| Manufacturing | 1,900 | 1,950 | 2,050 | -50 | -150 |
| Transportation | 9,450 | 9,800 | 9,450 | -350 | 0 |
| Trade | 24,000 | 25,550 | 24,350 | -1,550 | -350 |
| Finance-Ins. & R.E. | 7,500 | 7,600 | 8,150 | -100 | -650 |
| Services | 24,050 | 24,400 | 24,300 | 350 | -250 |
| Government | 27,800 | 28,500 | 28,300 | 700 | -500 |

## Table 4
## Nonagricultural Wage and Salary Employment
## By Place of Work
## Fairbanks

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 1/88 | r/ 12/87 | 1/87 | 12/87 | 1/87 |
| Nonag. Wage & Salary | 23,400 | 24,550 | 23,950 | -1,150 | -550 |
| Mining | 50 | 50 | 100 | 0 | -50 |
| Construction | 1,150 | 1,450 | 1,150 | -300 | 0 |
| Manufacturing | 500 | 500 | 500 | 0 | 0 |
| Transportation | 1,900 | 1,900 | 2,150 | 0 | -250 |
| Trucking & Warehousing | 300 | 300 | 350 | 0 | -50 |
| Air Transportation | 300 | 300 | 350 | 0 | -50 |
| All Other Transportation | 1,300 | 1,300 | 1,450 | 0 | -150 |
| Trade | 4,900 | 5,500 | 4,850 | -600 | 50 |
| Wholesale | 650 | 700 | 750 | -50 | -100 |
| Retail | 4,250 | 4,800 | 4,100 | -550 | 150 |
| Food Stores | 750 | 850 | 650 | -100 | 100 |
| All Other Retail | 3,500 | 3,950 | 3,450 | -450 | 50 |
| Finance-Ins. & R.E. | 850 | 900 | 950 | -50 | -100 |
| Services | 5,200 | 5,200 | 5,300 | 0 | -100 |
| Government | 8,850 | 9,050 | 8,950 | -200 | -100 |
| Federal | 2,700 | 2,750 | 2,650 | -50 | 50 |
| State | 3,650 | 3,800 | 3,600 | -150 | 50 |
| Local | 2,500 | 2,500 | 2,700 | 0 | -200 |

## Table 5
## Nonagricultural Wage and Salary Employment
## By Place of Work
## Interior

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 1/88 | r/ 12/87 | 1/87 | 12/87 | 1/87 |
| Nonag. Wage & Salary | 26,950 | 28,100 | 27,300 | -1,150 | -350 |
| Mining | 200 | 200 | 200 | 0 | 0 |
| Construction | 1,200 | 1,500 | 1,250 | -300 | -50 |
| Manufacturing | 500 | 500 | 500 | 0 | 0 |
| Transportation | 2,200 | 2,200 | 2,400 | 0 | -200 |
| Trade | 5,300 | 5,850 | 5,100 | -550 | 200 |
| Finance-Ins. & R.E. | 900 | 950 | 1,000 | -50 | -100 |
| Services | 5,450 | 5,500 | 5,700 | -50 | -250 |
| Government | 11,200 | 11,400 | 11,150 | -200 | 50 |

slowed by problems with timber access, would only bolster this growth.

The **transportation** industry has shown great variations between different sectors. For the year, both communication utilities and local passenger transportation are down significantly. This, combined with normal seasonal decreases, caused the transportation industry to lose almost 10% in employment and experience a preliminary drop of almost 40 cents/hour in average hourly earnings for the month. The bright spot in this industry is transportation services, posting large employment gains as a result of the strong wood products and seafood industries.

### Table 6
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Southeast Alaska

|  | p/ 1/88 | r/ 12/87 | 1/87 | Changes From: 12/87 | Changes From: 1/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 25,950 | 26,950 | 25,650 | -1,000 | 300 |
| Construction | 850 | 850 | 850 | 0 | 0 |
| Manufacturing | 3,150 | 3,600 | 2,500 | -450 | 650 |
| Seafood Processing | 900 | 700 | 600 | 200 | 300 |
| Lumber & Paper Prod. | 2,050 | 2,700 | 1,700 | -650 | 350 |
| All Other Manufacturing | 200 | 200 | 200 | 0 | 0 |
| Transportation | 1,750 | 1,950 | 1,750 | -200 | 0 |
| Trade | 4,100 | 4,300 | 4,100 | -200 | 0 |
| Wholesale | 350 | 350 | 350 | 0 | 0 |
| Retail | 3,750 | 3,950 | 3,750 | -200 | 0 |
| Finance-Ins. R.E. | 1,050 | 1,050 | 1,050 | 0 | 0 |
| Services | 4,250 | 4,250 | 4,300 | 0 | -50 |
| Government | 10,700 | 10,850 | 11,050 | -150 | -350 |
| Federal | 1,850 | 1,900 | 1,850 | -50 | 0 |
| State | 4,850 | 4,800 | 5,000 | 50 | -150 |
| Local | 4,000 | 4,150 | 4,200 | -150 | -200 |

### Table 7
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Gulf Coast

|  | p/ 1/88 | r/ 12/87 | 1/87 | Changes From: 12/87 | Changes From: 1/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 17,800 | 18,200 | 16,650 | -400 | 1,150 |
| Mining | 750 | 850 | 700 | -100 | 50 |
| Construction | 700 | 800 | 850 | -100 | -150 |
| Manufacturing | 3,000 | 3,000 | 1,950 | 0 | 1,050 |
| Seafood Processing | 2,400 | 2,400 | 1,350 | 0 | 1,050 |
| All Other Manufacturing | 600 | 600 | 600 | 0 | 0 |
| Transportation | 1,300 | 1,300 | 1,200 | 0 | 100 |
| Trade | 3,300 | 3,400 | 3,150 | -100 | 150 |
| Wholesale | 400 | 400 | 400 | 0 | 0 |
| Retail | 2,900 | 3,000 | 2,750 | -100 | 150 |
| Finance-Ins. & R.E. | 550 | 550 | 600 | 0 | -50 |
| Services | 2,950 | 3,050 | 2,950 | -100 | 0 |
| Government | 5,250 | 5,250 | 5,250 | 0 | 0 |
| Federal | 500 | 500 | 500 | 0 | 0 |
| State | 1,400 | 1,450 | 1,400 | -50 | 0 |
| Local | 3,350 | 3,300 | 3,350 | 50 | 0 |

Increasing by 0.1 percent, **retail trade** employment has, over-the-year, fared better than the total industry average, which lost 0.2%. Over-the-month, however, post Christmas cutbacks caused a drop in employment of 7.5% in this sector. This reduced workforce saw a 0.4 hour increase in their average weekly hours. Total retail trade employment has been held down by two types of establishments, eating and drinking places and retail building and furniture stores. Both of these rely heavily on construction activity. The link between retail building and furniture stores and construction is obvious. Eating and drinking employment includes catering. Most employment in catering occurs on large construction projects, where companies provide food preparation, serving, and housekeeping duties for construction workers.

**Wholesale trade** has experienced a decline in employment over-the-year, but fell less over-the-month than the all industry average. Preliminary weekly hours increased by 1.7 hours between December and January, with wages remaining nearly stable. Combined wholesale and retail trade has experienced a slight employment decrease over-the-year, and a large but somewhat expected decrease of 6.8% over-the-month.

## Geographic Employment Trends

**Southeast** experienced appreciable growth over-the-month in three industries. Noneducation state government employment increased with the start of the legislature, the finance, insurance and real estate sector showed noteworthy growth in Southeast, but the bright spot in the area's economy was seafood processing, where employment increased by over 30 percent. This was more than offset, however, by heavy losses in the lumber and paper products sector, located predominantly in Southeast, which led to an 11.7% decrease in manufacturing employment for the area.

Increasing activities in oil and gas saved **Anchorage-MatSu** from experiencing across the board decreases in employment for the month. Mining employment increased 3.4%, mainly on the strength

## Table 8
## Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 1/88 | R/ 12/87 | 1/87 | P/ 1/88 | R/ 12/87 | 1/87 | P/ 1/88 | R/ 12/87 | 1/87 |
| Mining | $1,164.02 | $1,201.18 | $1,197.84 | 48.1 | 49.8 | 49.6 | $24.20 | $24.12 | $24.15 |
| Construction | 837.32 | 891.33 | 884.14 | 35.3 | 36.5 | 37.4 | 23.72 | 24.42 | 23.64 |
| Manufacturing | 476.00 | 542.03 | 466.32 | 39.7 | 40.3 | 33.5 | 11.99 | 13.45 | 13.92 |
| Seafood Processing | 345.10 | 308.85 | 213.82 | 40.6 | 38.8 | 26.3 | 8.50 | 7.96 | 8.13 |
| Lumber & Paper Prod | 513.36 | 683.99 | 539.98 | 34.5 | 42.3 | 38.0 | 14.88 | 16.17 | 14.21 |
| Trans., Comm. & Util. | 553.32 | 567.00 | 584.37 | 36.0 | 36.0 | 36.5 | 15.37 | 15.75 | 16.01 |
| Trade | 358.05 | 345.83 | 355.38 | 33.0 | 32.2 | 33.4 | 10.85 | 10.74 | 10.64 |
| Wholesale | 550.17 | 529.15 | 480.48 | 40.1 | 38.4 | 39.0 | 13.72 | 13.78 | 12.32 |
| Retail | 292.84 | 286.60 | 312.48 | 30.6 | 30.2 | 31.5 | 9.57 | 9.49 | 9.92 |
| Finance-Ins. & R.E | 383.09 | 390.10 | 388.28 | 34.7 | 34.1 | 34.3 | 11.04 | 11.44 | 11.32 |

Benchmark March 1987.

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] Excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

of oil field services. Both construction and trade experienced large employment decreases for the month, with construction and manufacturing showing the largest percentage losses for the year, at 11.8% and 9%, respectively.

The **Gulf Coast** region showed gains in transportation and local government employment for the month, in contrast to a total employment loss of 2.3%. For the year, this is one of only two regions showing employment increases, up 7.5%. The Kodiak Island Borough and the Valdez-Cordova census area, aided by strong seafood processing, showed declines in their unemployment rates, to 5.8% and 11.9%, respectively.

The **Southwest** region is the other area showing a yearly employment increase. Seafood processing employment increased by 950, or 70%, for the month. Unemployment dropped to 7.1%, compared to 8.2% last month and 9.5% last year. All five Southwest census areas or boroughs showed lower unemployment rates over both time frames. Finance, insurance, and real estate was the only sector with an over-the-year decrease in employment for the region, indicating the regions overall economic strength.

**Fairbanks** and the **Interior** had few bright spots in their monthly employment numbers. For both areas, local government was the only industry to show growth, although some service sectors showed small increases. Overall, Fairbanks employment was down by over 1,100 between December and January, a 4.4% decrease.

Losses in construction and services over-the-year, and construction and mining over-the-month, have caused the **Northern** region to post the largest percentage employment losses of all regions. Monthly employment has decreased by 4.5%, while the yearly figure is 5.5% lower.

### Conclusion

Ironically, those areas of the state showing the most strength are the same ones impacted least by the oil boom. Although the statewide unemployment rate increased by 0.8%, 10 of the 23 census areas showed decreases in their unemployment rates, and only 2 census areas showed higher unemployment rates than a year ago.

Just as Alaska's economic downturn was a product of several factors, it appears that strength in several sectors will enhance our economic recovery. Unseasonal strength in seafood processing has tempered the state's economic slide, and given the economy a stronger base on which to build. Lumber and paper products, though hampered by weather during January, continues to show strong growth. The strength of these two sectors should allow manufacturing to play an important role in the state's economic recovery. With a boost from other seasonal industries such as tourism, and the potential for increased activities in oil and gas, the economy may, over the next several months, regain some of the ground lost over the past two years.

# Table 9
# Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 1/88 | R/ 12/87 | 1/87 | P/ 1/88 | R/ 12/87 | 1/87 | P/ 1/88 | R/ 12/87 | 1/87 | P/ 1/88 | R/ 12/87 | 1/87 |
| Alaska Statewide | 233,295 | 237,724 | 233,039 | 25,174 | 23,706 | 30,567 | 10.8 | 10.0 | 13.1 | 208,121 | 214,018 | 202,472 |
| Anch.-MatSu Region | 124,300 | 126,818 | 125,699 | 11,439 | 10,718 | 13,667 | 9.2 | 8.5 | 10.9 | 112,861 | 116,100 | 112,032 |
| Anchorage Borough | 109,614 | 112,404 | 110,429 | 8,776 | 8,215 | 10,445 | 8.0 | 7.3 | 9.5 | 100,838 | 104,189 | 99,984 |
| MatSu Borough | 14,686 | 14,414 | 15,270 | 2,663 | 2,503 | 3,222 | 18.1 | 17.4 | 21.1 | 12,023 | 11,911 | 12,048 |
| Gulf Coast Region | 24,963 | 25,243 | 23,650 | 3,534 | 3,318 | 4,425 | 14.2 | 13.1 | 18.7 | 21,429 | 21,925 | 19,225 |
| Kenai Peninsula Bor | 16,192 | 16,196 | 15,328 | 2,808 | 2,502 | 3,321 | 17.3 | 15.4 | 21.7 | 13,384 | 13,694 | 12,007 |
| Kodiak Island Bor | 5,238 | 5,406 | 4,912 | 304 | 358 | 486 | 5.8 | 6.6 | 9.9 | 4,934 | 5,048 | 4,426 |
| Valdez-Cordova | 3,533 | 3,641 | 3,410 | 422 | 458 | 618 | 11.9 | 12.6 | 18.1 | 3,111 | 3,183 | 2,792 |
| Interior Region | 34,245 | 35,578 | 35,096 | 4,920 | 4,943 | 6,226 | 14.4 | 13.9 | 17.7 | 29,325 | 30,635 | 28,870 |
| Fairbanks North Star Br | 29,392 | 30,546 | 30,071 | 4,055 | 4,077 | 5,127 | 13.8 | 13.3 | 17.0 | 25,337 | 26,469 | 24,944 |
| Southeast Fairbanks | 2,073 | 2,120 | 2,091 | 362 | 333 | 407 | 17.5 | 15.7 | 19.5 | 1,711 | 1,787 | 1,684 |
| Yukon-Koyukuk | 2,780 | 2,912 | 2,934 | 503 | 533 | 692 | 18.1 | 18.3 | 23.6 | 2,277 | 2,379 | 2,242 |
| Northern Region | 7,519 | 7,749 | 7,676 | 768 | 754 | 850 | 10.2 | 9.7 | 11.1 | 6,751 | 6,995 | 6,826 |
| Nome | 2,934 | 3,007 | 2,903 | 365 | 345 | 306 | 12.4 | 11.5 | 10.5 | 2,569 | 2,662 | 2,597 |
| North Slope Borough | 2,616 | 2,734 | 2,703 | 131 | 159 | 190 | 5.0 | 5.8 | 7.0 | 2,485 | 2,575 | 2,513 |
| Northwest Arctic Bor | 1,969 | 2,008 | 2,070 | 272 | 250 | 354 | 13.8 | 12.5 | 17.1 | 1,697 | 1,758 | 1,716 |
| Southeast Region | 31,201 | 31,510 | 30,952 | 3,727 | 3,083 | 4,450 | 11.9 | 9.8 | 14.4 | 27,474 | 28,427 | 26,502 |
| Haines Borough | 843 | 839 | 850 | 150 | 122 | 182 | 17.8 | 14.5 | 21.4 | 693 | 717 | 668 |
| Juneau Borough | 13,176 | 13,573 | 13,028 | 927 | 898 | 1,211 | 7.0 | 6.6 | 9.3 | 12,249 | 12,675 | 11,817 |
| Ketchikan Gateway Br | 6,175 | 6,151 | 6,122 | 746 | 534 | 885 | 12.1 | 8.7 | 14.5 | 5,429 | 5,617 | 5,237 |
| Pr. of Wales-Outer Ktch | 2,519 | 2,379 | 2,511 | 550 | 342 | 612 | 21.8 | 14.4 | 24.4 | 1,969 | 2,037 | 1,899 |
| Sitka Borough | 3,627 | 3,771 | 3,513 | 332 | 362 | 335 | 9.2 | 9.6 | 9.5 | 3,295 | 3,409 | 3,178 |
| Skagway-Yakutat-Ang | 1,701 | 1,629 | 1,631 | 485 | 371 | 458 | 28.5 | 22.8 | 28.1 | 1,216 | 1,258 | 1,173 |
| Wrangell-Petersburg | 3,160 | 3,168 | 3,297 | 537 | 454 | 767 | 17.0 | 14.3 | 23.3 | 2,623 | 2,714 | 2,530 |
| Southwest Region | 11,067 | 10,826 | 9,966 | 786 | 890 | 949 | 7.1 | 8.2 | 9.5 | 10,281 | 9,936 | 9,017 |
| Aleutian Islands | 3,051 | 2,956 | 2,726 | 90 | 95 | 129 | 2.9 | 3.2 | 4.7 | 2,961 | 2,861 | 2,597 |
| Bethel | 4,264 | 4,191 | 3,830 | 320 | 379 | 371 | 7.5 | 9.0 | 9.7 | 3,944 | 3,812 | 3,459 |
| Bristol Bay Borough | 400 | 398 | 379 | 43 | 53 | 66 | 10.8 | 13.3 | 17.4 | 357 | 345 | 313 |
| Dillingham | 1,989 | 1,940 | 1,806 | 152 | 165 | 195 | 7.6 | 8.5 | 10.8 | 1,837 | 1,775 | 1,611 |
| Wade Hampton | 1,363 | 1,341 | 1,225 | 181 | 198 | 188 | 13.3 | 14.8 | 15.3 | 1,182 | 1,143 | 1,037 |

P/ Preliminary R/ Revised 1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

**ALASKA ECONOMIC TRENDS**
ALASKA DEPARTMENT OF LABOR
EMPLOYMENT SECURITY DIVISION
P. O. BOX [illegible]
JUNEAU, ALASKA [illegible]

OFFICIAL BUSINESS
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# ALASKA ECONOMIC TRENDS

April
1988

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ALASKA ECONOMY

Alaska Employment Forecast: 1988-1989

Anchorage Employment Forecast: 1988-1989

Fairbanks Employment Forecast: 1988-1989

Southeast Alaska Employment Forecast: 1988-1989

Alaska's Employment Scene

# Alaska Economic Trends

*Steve Cowper*, Governor, State of Alaska

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Department of Labor

*Frank Spargo*, Director
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April 1988
Volume 8
Issue 4

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*Alaska Economic Trends* is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact John Boucher, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.

The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

# Alaska's Employment Forecast: 1988-1989

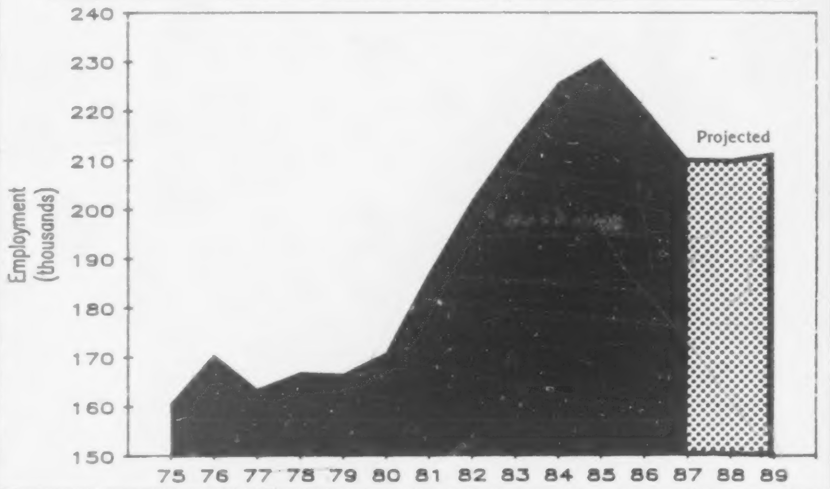
By John Boucher

## Introduction

Alaska is going headlong toward 1990 with a guarded apprehensiveness about the future of the state's economy. Since the mid 1970s the economy of the state has been inexorably linked to the price of one commodity-oil. With a large portion of Alaska's economic well-being tied to the price of oil, the economy has been subject to the fluctuations which inevitably occur to the price of that commodity. Add to this the fact that the world oil market is best described as volatile, and the foundation for uncertainty about the future of Alaska's economy is firmly in place.

There is no event on the horizon which will magically extricate Alaska's economy from its dependence upon world oil markets. The price of oil and the associated employment and revenue it provides the state will be the single most important factor in determining the direction that the Alaskan economy takes in the near future. Other events in the next two years can stabilize Alaska's economy and produce overall employment growth if oil prices foster the stability in industries which have been responsible for most of the employment losses during the past two years (Figure 1).

Figure 1
Alaska Employment 1975-1989



Despite the dependance of the economy upon oil, some sectors are thriving and will lead the state to employment growth provided that oil prices stay stable. Tourism activity is anticipated to increase in the next two years. Initial bookings are up over 1987, and current exchange rates are favorable for the industry. Foreign tourists will find a visit to Alaska more affordable and Americans who would otherwise travel abroad will find Alaska relatively less expensive.

The tourism industry could receive the beginning of a major windfall in winter tourist activity in 1989 if Anchorage is selected as the site for the 1994 Winter Olympic Games. Selection of the site for the 1994 games will occur this fall. Sofia, Bulgaria is currently considered Anchorage's leading competitor in the effort to land the games. If the Anchorage bid falls short but makes a strong showing, benefits could still accrue to the winter tourist business from continued promotion of Anchorage as a premiere winter sports destination.

Hard rock mining will make some inroads in 1988 and continue to post employment growth through 1989. The Green's Creek Mine is anticipated to come on line in late 1988 and reach peak employment by mid 1989. The Red Dog mining venture is expected to come on line near the end of the forecast period. Besides these two mining ventures, no new major mine (100 or more employees) is expected to come into production in the forecast period. A significant contribution to employment in this industry will be smaller mines and the exploration and development of projects which may come on line in the early 1990s.

The manufacturing industry is expected to be the outstanding performer in terms of employment growth during the forecast period. The export and production of Alaska's natural resources, primarily fish and timber, are expected to propel manufacturing's share of total wage and salary employment to 7%. Manufacturing has not played this large a role in wage and salary employment since 1980.

Military expansion is expected to continue in Fairbanks although it may not be as large as originally planned. The scaling back of the number of civilians will dampen the potential economic benefit to Fairbanks, but the expansion will still have a positive effect on the economy.

Other smaller projects and proposals are on the drawing board and hold promise for future employment growth, however they will have a relatively small impact on Alaska's economy. Two events which are highly unlikely but would revise the forecast significantly upward are 1) if the price of oil were to increase to over $20/bbl. and be perceived to remain there for the foreseeable future or 2) if contracts for North Slope natural gas were signed.

Table 1
State Government Employment
Yearly Trend and Six Month Average Trend 1985-1987

| Year | Annual Average | Percent Change | 6 Month Average | Percent Change |
|---|---|---|---|---|
| (1st Half) | - | - | 20,234 | - |
| 1985 (2nd Half) | 20,467 |  | 20,699 | 2.3 |
| (1st Half) | - | - | 20,579 | -0.5 |
| 1986 (2nd Half) | 20,184 | -1.4 | 19,781 | -3.8 |
| (1st Half) | - | - | 18,784 | -5.0 |
| 1987 (2nd Half) | 18,739 | -7.2 | 18,695 | -0.5 |

## Assumptions

A forecast is a prediction of what will happen in the future given certain assumptions. In the forecasting process arriving at the assumptions upon which to base the forecast can be the most critical stage. The assumptions are crucial because oftentimes they influence the results of the forecast. There are several specific assumptions in this forecast in addition to the generalities discussed above.

The price of oil is expected to average between $14 and $17/bbl. throughout the forecast period. The State of Alaska's capital and operating budget for fiscal 1989 (beginning July 1, 1988) is expected to be in the range of $2.0 billion. The budget for the following state fiscal year is anticipated to be no larger than the expected budget for FY89.

The yen/$ exchange ratio, which has been favorable to the growth of Alaska's manufacturing industry, is anticipated to remain so.

In examining the overall impact of the forecast it is important to keep in mind that the timing of employment changes is very important. This timing problem can cause distortions in the annual averages and as such the annual average doesn't always reflect perceptions of what is happening in an industry. In government employment, particularly state and local government, changes tend to occur at mid-year (the beginning of the state fiscal year). In calculating the annual average, the average for the first half of the year and the second half of the year may differ significantly and the annual average may under or overstate changes. For example Table 1 shows annual average employment in state government and compares it to the six month averages for the same period. This illustrates the danger of relying solely on annual average trends.

Table 2 gives the statewide employment forecast by industry while each major industry is discussed in detail below. In addition to the statewide forecast, there are employment forecasts for the Anchorage, Fairbanks and Southeast Alaska regions. While each forecast was made independently, all of the forecasts assumed the same price of oil and level of state spending. Individual assumptions crucial to regional forecasts were incorporated into the statewide forecast. The statewide forecast anticipates that the Anchorage economy will exert a drag on total employment growth in 1988 with a return to slow employment growth in 1989 after losses in Anchorage subside.

## Mining

The mining industry is composed of oil and gas extraction, metal and nonmetal mining. The oil and gas sector accounts for over 90% of employment in this industry.

## Table 2
## Alaska
## Industry Employment Forecast
## 1988-1989

| | 1985 | 1986 | 1987 | 1988 | Percent Change 87-88 | 1989 | Percent Change 88-89 |
|---|---|---|---|---|---|---|---|
| Total Nonag Wage & Salary | 230,610 | 220,681 | 210,252 | 210,150 | -0.0 | 211,450 | 0.6 |
| Mining | 9,513 | 9,080 | 8,461 | 8,700 | 2.8 | 9,100 | 4.6 |
| Construction | 18,605 | 13,372 | 10,594 | 9,950 | -6.1 | 9,900 | -0.5 |
| Manufacturing | 12,095 | 12,548 | 13,535 | 14,400 | 6.4 | 14,750 | 2.4 |
| Transportation | 18,684 | 17,949 | 17,733 | 17,850 | 0.7 | 17,900 | 0.3 |
| Wholesale | 8,732 | 8,142 | 7,362 | 7,400 | 0.5 | 7,400 | 0.0 |
| Retail | 37,069 | 35,522 | 34,001 | 33,900 | -0.3 | 34,000 | 0.3 |
| F.I.R.E. | 12,766 | 12,431 | 11,159 | 10,900 | -2.3 | 10,900 | 0.0 |
| Services | 44,810 | 43,657 | 41,742 | 41,400 | -0.8 | 41,500 | 0.2 |
| Federal | 17,567 | 17,592 | 17,987 | 18,200 | 1.2 | 18,300 | 0.5 |
| State | 20,467 | 20,184 | 18,739 | 18,750 | 0.1 | 18,750 | 0.0 |
| Local | 30,303 | 30,205 | 28,940 | 28,700 | -0.8 | 28,950 | 0.9 |

Assumptions

1. Price of oil will remain in the $14-17/bbl. range.
2. The state's operating and capital budget for both FY 89 & 90 will be approximately $2.0 billion.
3. Yen/$ exchange rate continues to promote growth in Alaska manufacturing industry.

As 1987 closed there were signs of a return to activity on the North Slope and Kenai Peninsula. The recent fluctuations in the price of oil may cause some industry nervousness but as of this writing exploration and development activity planned for 1988 exceeds last years. The Prudhoe Bay field is gradually approaching a point where more wells are needed to keep production at its current levels. It is typical of an oil field to become more labor intensive as it ages and therefore the outlook for Prudhoe Bay related oil and gas employment is for continued growth throughout the forecast period.

Metal mining will have significant growth during the forecast period. Green's Creek near Juneau and Red Dog near Kotzebue will be making substantial contributions by 1990. A number of other ventures will make smaller contributions to employment, primarily in exploration and development. A few projects will be producing during the forecast period but they will be small in scale compared to Red Dog and Green's Creek. Percentage-wise, metal mining will probably be the fastest growing sector in terms of employment in Alaska's economy during the next two years.

Nonmetal mining employment is not expected to experience any significant change in employment during the next two years. The two largest components of this sector are coal mining and sand and gravel extraction. Sand and gravel is tied to the fortunes of the construction industry so this industry could be expected to lose employment during the next two years. Coal mining will not make any significant employment additions. Production at Alaska's lone coal mine could be expanded without a tremendous amount of additional labor.

There are some potential large contributors to employment but they will not occur during the forecast period. The Beluga coal field is not currently competitive given existing technology and the world market for coal. The same can be said for the molybdenum rich Quartz Hill mine near Ketchikan. In the long term however, these two projects may contribute significantly to Alaskan mining employment.

### Construction

The construction industry has taken the largest employment losses during the past several years. Every sector which contributed to the run up in construction employment in the early 1980s has trimmed back significantly during the last three years. Given the recent performance of the industry it would be easiest to forecast a continued downward spiral for the next two years. However, the statewide forecast looks for construction employment to continue downward in 1988 but at a slower rate and then flatten out in 1989.

Residential and commercial construction is expected to remain at its currently depressed levels, especially in the urban markets. The largest bright spot in residential construction will be the military, which is planning on continuing housing expansion on Fort Wainwright. Residential and commercial construction will have pockets of activity throughout the state. Seward for example will have to accommodate the new employees which will staff the Springs Creek Correctional Facility. These small pockets of residential and commercial activity will not be enough to offset the continuing declines in Anchorage in 1988, however as Anchorage losses abate, these areas will help the industry stabilize in 1989.

Other major players in Alaska's construction industry are expected to either hold steady or increase activity during the forecast period. The worst seems to be over for the oil industry and oil and gas related construction is anticipated to increase. The list of scheduled projects include the rebuilding of the Steelhead oil platform in Cook Inlet, a refinery in Valdez and modules to be built by VECO for the North Slope.

The federal government will continue to be a steady source of construction employment as federal highway and airport dollars, the Forest Service, Post Office and military will all make contributions. State funded construction, which has become less of a dominant factor, will contribute to employment but scaled back from 1987 levels. The most significant project will be the Bradley Lake hydroelectric dam near Homer.

## Manufacturing

The manufacturing industry is projected to be the greatest contributor to new jobs during the next two years. Much of the employment gains will be in the seafood processing sector. In Alaskan seafood circles salmon is the most prominent species in terms of employment and value. The burgeoning bottomfish fishery is challenging other species for the second spot.

The employment growth related to the bottomfish fishery is significant for several reasons. It provides the seafood processor and harvester with off-season income and activity, a plus for an industry which experiences 70-80% of its activity in three months of the year. The off-season activity helps diversify the industry and provides income and employment opportunities in areas of Alaska which often have limited wage and salary employment opportunities during the winter months.

The timber industry will also contribute to employment growth in manufacturing. Southeast's pulp mills have just come off one of their most productive years in recent memory. Closed sawmills are reopening their doors and new investment is taking place. Provided exchange rates remain favorable the outlook in the timber industry is for steady growth.

Manufacturing employment which is not timber or seafood related is dominated by newspapers and printing and publishing firms. The outlook for this portion of the manufacturing industry foresees little change and perhaps some slow growth in newspapers serving Alaska's smaller communities. One bright spot in this sector for the next two years will be the Ketchikan shipyard. Employment could double from its current level by the summer of 1989.

## Transportation, Communications and Utilities

This industry covers a broad range of activities which makes the outlook for the industry as a whole mixed. Some sectors of transportation will be benefactors of increased tourism activity. Air transportation, some ground transportation and to a lesser extent water transportation will all be impacted positively by a growing number of Alaskan tourists. The air and water transportation sectors should also benefit from growth in mining and manufacturing activity in Alaska's smaller communities. Logging camps, remote seafood processors and mine exploration groups will have to transport people and supplies and air and water are the two most likely modes of transport.

For other portions of the industry little change or continued losses are projected. Trucking and warehousing is expected to experience some losses as the construction industry continues to struggle. Communications and utilities are expected to have relatively small changes in employment because population is not being lost at the rate it was during 1986 & early 1987.

## Trade

Lower incomes, declining population and uncertainty about Alaska's economic future all helped push wholesale and retail trade into employment losses the last two years. As all three of these factors stabilize during the course of 1988 employment losses will subside.

When the losses do subside though some sectors will emerge in much better shape than others. Construction related wholesale and retail trade will be one sector which continues to experience employment losses. Examples of this type of establishment are building and material supply stores, hardware stores and construction related machinery.

Durable goods retailers such as car dealers, furniture stores and large appliance retailers will be better off than construction related retailers. This is because many consumers put off the purchase of big ticket items due to past uncertainty about the economy. As consumer confidence returns, sales of durable goods are expected to pick up and employment will stabilize and experience some small growth.

Food stores and general merchandise and apparel stores have already indicated the start of the turnaround in trade employment. These retailers represent what might be termed necessity item purchases. Although population losses and income declines spurred employment drops in these sectors, they were among the first to recover. As of February, both of these sectors were posting employment growth over-the-year.

### Finance-Insurance and Real Estate

Employment losses and other difficulties this industry has faced during the past 18 months have been well documented. Bank closures and consolidations, high foreclosure rates and a huge inventory of residential and commercial real estate are all a lamentable part of this industry's current picture.

Unfortunately, there is nothing on the horizon which will turn Alaska's real estate market around in the next two years. While single family home sales have picked up recently, no relief is in sight for the condominium, multi-unit, and mobile home markets.

One of the most crucial factors to Alaska's overall economy will be how the large inventory of foreclosed properties are managed by institutions such as the Alaska Housing Finance Corporation (AHFC), and the Federal Deposit Insurance Corporation (FDIC). Wholesale liquidation of foreclosed properties would drive down property values even further and exacerbate the problem of "negative equity" which many property owners are already too familiar with.

In terms of employment in this industry, the worst of the losses are behind. Many banks and credit unions continue to struggle but are turning the corner. Employment losses are projected to continue through the end of 1988 but level off in 1989.

### Services

Much like the other support industries of transportation and trade the outlook for the services industry is mixed. Overall, services is expected to lose employment in 1988 and follow that with a slight gain in 1989.

The services sector encompasses a broad range of activity: from hotel and motel operators to architects; dry cleaners to auto repair; bowling alleys to hospitals. In general the trend of service industry employment is dependant upon disposable income, of which there is much less in Alaska than there was two years ago.

Some essential services such as medical and health care services are projected to have employment growth throughout the forecast period. Services which are closely tied to the tourism industry, such as hotels and motels and some recreational services, will also have some employment growth.

Services which are almost entirely dependant upon local consumers such as beauty shops, dry cleaners and membership organizations are expected to continue to lose employment but at a much slower rate than the past two years. As incomes stabilize and the economic outlook improves these services will rebound into slight employment growth.

### Government

Dramatic declines in state and local government employment took place in 1986 and 1987. These losses are expected to reverse themselves by the end of the forecast period. Federal government employment has been growing largely due to staffing associated with the 6th Light Infantry Division, but these gains are expected to subside and perhaps even reverse themselves during the forecast period. A change of administration may have a dramatic impact on federal government employment in the future, but the changes would probably not take place until the end of the forecast period.

State government employment is expected to experience a small increase in 1988. This estimate may be on the conservative side given the budget submitted by the governor. Additional staffing of the Department of Corrections for the Springs Creek facility in Seward is included but it is anticipated that cuts may have to occur elsewhere to bring the facility up to full strength. As of this writing the legislature was faced with projected revenue of approximately $1.8 billion and a proposed budget about $400 million in excess of that. Clearly a cautious forecast about state government employment growth is warranted, but flexibility in terms of alternate revenue sources and employee contracts allows for some growth.

Local governments must struggle with the same fiscal difficulties as the state government. In part this is due to local governments dependence upon state funds for their operations of both the education and noneducational functions they provide. If recent trends are any indication, Alaskan local governments are more likely to scale back services or trim operating expenditures in response to financial difficulties than raise local taxes. With property values in most cities and boroughs dropping the pressure on local governments to cut expenditures will remain. Those areas which are almost entirely dependant upon state funds will almost certainly face no growth or cutbacks in employment.

One demographic fact will push the education portion of local government into a growth mode as early as 1989. For the foreseeable future Alaska has a larger amount of youngsters entering school than graduating. In some years the projected differences make for an additional 4,000 potential students per year. Aditional school staffing will almost have to take place to accommodate the addition of these young people to Alaska's educational system.

### Conclusion

Sometime during the next twelve months employment in Alaska will post its first year-to-year employment gain since February of 1986. Mining, manufacturing, and to a lesser extent tourism will be the activities which will lead Alaska out of the longest period of employment contraction in recent memory.

Previous boom and bust cycles have passed through Alaska's economy and each time when the cycle has run its course Alaska has emerged with a larger and more diversified economy. While this rout has been protracted, it is no exception to previous boom and bust cycles. If the forecast for employment through 1989 is accurate, Alaska's economy will head into the 1990s with 40,500 more jobs than at the beginning of the decade. This translates into 24% more jobs and an annual growth rate of 2.2%.

In any economic shake out there are winners and losers. While the surplus of commercial space in many markets is a disaster to some investors, the flip side is that new and existing marginal business ventures may find operating costs lower and be able to make a business viable that might not have been otherwise. While it is a tough pill to swallow there are indications that the recession has helped Alaska become more competitive with the lower 48 in terms of wages, the overall cost of living and the cost to do business.

The outlook for the immediate future of the Alaskan economy is one of guarded optimism. Optimistic in the fact that employment growth is beginning to overtake employment losses and Alaska is currently on a course for future growth. However this optimism is guarded because while employment gains in some industries will be realized, overall employment growth is dependant upon the stabilization of the oil and gas industry, government and other secondary industries dependant upon oil. In that sense overall employment growth still rests squarely on the shoulders of that capricious beast—the world oil market.

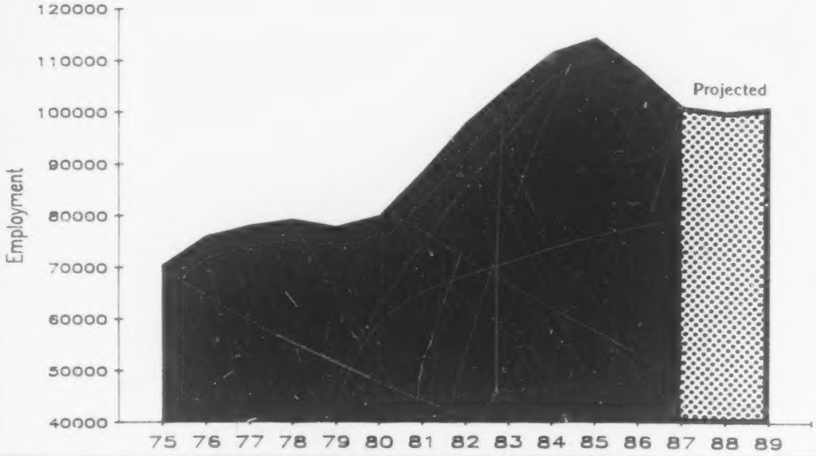
## Anchorage Employment Forecast: 1988-1989

By Greg Huff

After two years of employment declines it appears that the recession has nearly run its course, however, given the shaky nature of oil prices and state government expenditures, the impending recovery will be tentative at best. The Anchorage employment forecast, based on sample employment data through February 1988, indicates that by the end of this year overall employment declines will end, replaced by slow job growth through 1989. The net results show total employment declining 1% in 1988 and increasing 0.9% in 1989 (Table 1).

However, by the time Anchorage employment turns around, 14,400 jobs will have been lost, a decline of 12.6% since 1985. Total employment levels would be down to those found in late 1982 (Figure 1). Even with total employment forecasted to increase in 1989, employment levels will remain 4% below 1983's annual average.

Figure 1
Anchorage Employment 1975-1989



### Assumptions

Key assumptions during the forecast period include:

1) The price of oil will remain the $14-17/bbl. range.
2) The state's operating and capital budget will be approximately $2.0 billion.
3) The fish processing and timber industries current vitality continues.
4) Hard rock mining activities around the state continue to pick up.
5) Tourism continues to increase.
6) Federal government expenditures remain relatively stable in 1988 and fall slightly in 1989.

In addition, the forecast **does not** assume Anchorage will be designated as the site of the 1994 Winter Olympics. The announcement expected this fall would have little direct impact during the forecast period, but it would heighten people's outlook. One direct impact the announcement may have in 1988 would be to give an added push to the proposed ski resort in Eagle River. Construction of the ski resort is not assumed in this forecast. In short, a positive announcement would act as an attitude spring board, while a negative announcement, though a disappointment for many in Anchorage would not impact employment trends projected by this forecast.

### Employment Outlook by Sector

The forecast shows a mixed industry performance in 1988. Employment increases are indicated in mining; manufacturing; transportation, communications & utilities; and trade. Losses are predicted in construction; finance-insurance and real estate; services; and government. By 1989 the forecast indicates that only the construction industry remains in the negative category (Figure 2).

### Government

In 1988, small increases in federal and state government employment offset much of the declines in local government employment, resulting in a net decline of 50 government jobs.

**Federal government** employment is expected to grow by 100 jobs, despite the announcement by the Army that several hundred civilian jobs will be lost in Anchorage in 1988 and 1989. Offsetting these declines are gains in Air Force civilian and National Guard employment. With those offsetting changes combined with small net gains elsewhere in federal government, federal employment will increase slightly in 1988.

By late 1988 cutbacks in the Army in addition to federal deficit pressures will cause employment declines which won't be registered until 1939. Any major shifts in the military's policies and/or federal funds could alter this middle of the road forecast.

**State government** employment will increase approximately 50 jobs in 1988. However, this figure could easily go the other direction. Indications are that employment losses in state government had abated by early 1988. For example, our sample of state government employment as of February 1988 shows state government employment down only 47 jobs or 0.6% over-the-year compared to the 8% decline since 1985. Moderate growth is anticipated into 1989.

Most **local government** employment losses are forecasted to take place

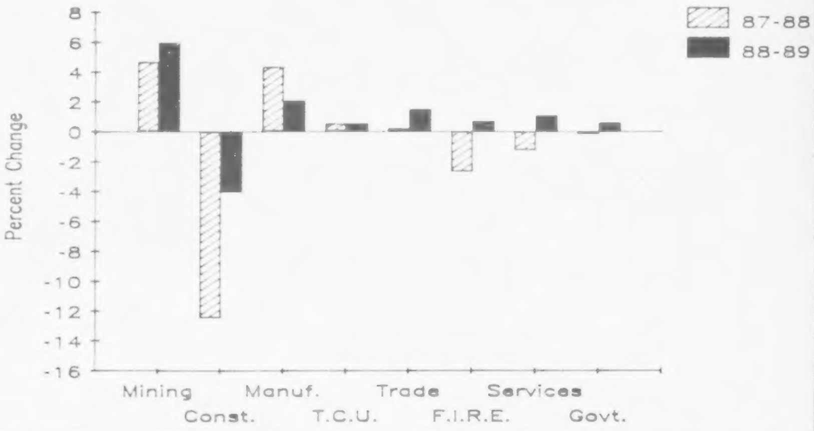
### Table 1
### Anchorage Employment Forecast
### 1988 - 1989

| | 1987 | 1988 | Percent Change 87-88 | 1989 | Percent Change 88-89 |
|---|---|---|---|---|---|
| Total Nonag. Employment | 101,100 | 100,100 | -1.0 | 101,000 | 0.9 |
| Mining | 3,200 | 3,350 | 4.7 | 3,550 | 6.0 |
| Construction | 5,600 | 4,900 | -12.5 | 4,700 | -4.1 |
| Manufacturing | 2,300 | 2,400 | 4.3 | 2,450 | 2.1 |
| Trans. Comm. & Utilities | 9,400 | 9,450 | 0.5 | 9,500 | 0.5 |
| Trade | 23,400 | 23,450 | 0.2 | 23,800 | 1.5 |
| Wholesale | 5,400 | 5,300 | -1.9 | 5,350 | 0.9 |
| Retail | 18,000 | 18,150 | 0.8 | 18,450 | 1.7 |
| Finance-Ins. & R.E. | 7,400 | 7,200 | -2.7 | 7,250 | 0.7 |
| Services | 23,700 | 23,400 | -1.3 | 23,650 | 1.1 |
| Government | 26,000 | 25,950 | -0.2 | 26,100 | 0.6 |
| Federal | 10,400 | 10,500 | 1.0 | 10,450 | -0.5 |
| State | 6,700 | 6,750 | 0.7 | 6,850 | 1.5 |
| Local | 8,900 | 8,700 | -2.2 | 8,800 | 1.1 |

Assumptions

1) The price of oil will remain in the $14-17/bbl. range.
2) The state's operating and capital budget will be approximately $2.0 billion.
3) The fish processing and timber industries current vitality continues.
4) Hard rock mining activities around the state continue to pick up.
5) Tourism continues to increase.
6) Federal government expenditures remain relatively stable in 1988 and fall slightly in 1989.

Figure 2
Percent Change in Employment by Major Industry
Anchorage 1987-1988 and 1988-1989



during the first half of 1988 and subside during the second half of the year. As of February 1988 local government employment was down 8% or 800 jobs from year-ago figures. Most declines were initiated in mid to late 1987. Some reductions occurred in the number of teachers and other full-time staff, but most of the declines were related to part-time help.

By the second half of 1988 most of these cutbacks will have been completed. With school enrollment stabilizing and the start-up of all day kindergarten local education employment will grow slightly in 1989. In addition, state funds assisting local education are expected to increase.

No major layoffs are anticipated in the noneducational side of local government. It appears negotiations concerning wage and benefit concessions have been effective, cancelling many proposed layoffs. Continued constriction in state government assistance to local governments combined with a falling local tax base will cause some declines through 1988, but by 1989 employment in the municipal government, which includes city owned utilities, will increase slightly.

### Mining

The forecast calls for mining to be the growth leader during the forecast period. Employment in this industry is forecast to increase over 10% in the next two years. This is after declines of 26% from 1985 to 1987. The increases in mining employment in 1988 and 1989 are concentrated in the oil and gas sector as drilling and exploration schedules expand on the North Slope.

The rebuilding of the Steelhead platform in Cook Inlet which was destroyed by a blowout last year and VECO's contract to build modules for the North Slope will also cause some employment growth.

If oil prices go above $18 Milne Point would reopen and above $20 other development projects currently on hold would take place. Hence, higher oil prices means employment growth above the growth indicated by the forecasted figures. However, if oil and prices fell and stayed below $13 for a substantial period the opposite would happen and the oil and gas industry would not post even moderate employment gains.

### Construction

There are no indications that the doldrums are over for the construction industry. The forecast indicates employment declines of nearly 13% in 1988 and 5% the following year. These declines put construction employment levels below those of any year since the early 1970's.

The forecast assumes that residential construction picks up slightly this summer with the possibility of 300 single family homes being built during the summer of 1988. This is an increase of nearly 40%. In percentage terms this sounds good, but in absolute terms it can be classified as nothing but a poor year. In terms of residential permit data there hasn't been a time outside of 1987 that fewer homes were built since the late 1960's. Residential construction employment will continue to grow slowly in 1989, but will remain significantly below levels found during the boom years or for that matter below levels of the last 15 years.

Highway and heavy construction will decline slightly in 1988 and stabilize in 1989. The two major highways getting underway in 1988 are the Eagle River bridge and the Rabbit Creek/DeArmoun interchange both valued at over $20 million.

The commercial building sector will take the brunt of the construction employment declines. State and private construction projects have dried up and there are not many bright spots on the horizon. Construction of the court house expansion will not occur in the forecast time frame. It appears even if approved this session the earliest the project would start would be 1989. Indeed, a start-up that year would offset the construction employment declines forecast for 1989.

One bright spot in the commercial building sector is Alyeska's plan to expand their ski resort facilities in Girdwood. This $40 million project includes an addition of 300 rooms and the construction of a gondola. This project will directly impact several hundred construction workers through 1991. The proposed $200 million Eagle River ski/tourist resort is not assumed in this forecast. If the project does get the go ahead the forecasted construction employment figures would need to be revised upward by several hundred jobs.

Military construction levels are anticipated to remain stable with increases in National Guard construction projects offsetting declines in other military components. The largest military project in Anchorage during the forecast period is construction of the Air National Guard hangar and support facilities on Elmendorf Air Force Base.

### Secondary Industries

A recovering mining industry, robust seafood processing industry, increasing tourism, stabilizing government employment and the bottoming-out of population and income levels will all have a positive impact on the secondary sectors.

**Transportation, Communications, and Utilities** employment is forecast to increase 1% over the two year forecast period. Trucking employment will remain stable because of military contracts. Air transportation will see modest increases after falling 6% in 1987. Increasing tourism and the robust seafood processing industry will help fuel the growth in air transportation. Water transportation employment will remain flat although cargo tonnage may increase slightly. The communications industry and private utilities are expected to grow slightly.

After falling nearly 20% in two years, employment in the **Trade** industry is expected to increase in 1988 and 1989. However, the movements of wholesale and retail trade are largely offsetting in 1988. Stabilizing population and income levels and increasing tourism are the primary impetus for growth in the retail sector. In short, it appears that trade has been stripped of its overcapacity quite quickly and now slow growth will settle in.

Bad new continues for the **Finance, Insurance and Real Estate** industry. After falling 15% since 1985 employment in this industry is forecast to fall another 3% before all the declines are over. After the worst year ever for Anchorage's banking industry, a dismal year for insurance companies and a rock bottom year for real estate it does appear the worst is over. Some banks remain financially strapped. The real estate market has shown signs of life as sales of single family homes are picking up. The inventory of condominiums will continue to be a drag on the real estate market throughout the forecast period.

The **Services** industry is composed of many sectors but the primary groups include hotels/motels, personal services (like laundry and beauty parlors), business services, construction services (like architects and engineers) and health care. Due to continued employment declines in the business and construction services sectors total services is forecast to decline in 1988. By the following year overcapacity should be wrung out of those sectors preparing the way for the other services sectors to induce increases in total services employment.

### Conclusion

Forecasting, at best, provides economy watchers with a tool to judge the possible movement of an economy. The Anchorage employment forecast presented in this article establishes a baseline or most likely outlook. Given the assumptions stated above total Anchorage employment is expected to hit bottom sometime in late 1988 and grow slowly through 1989.

A number of different scenarios could actually occur. Some can produce a continued downward spiral in employment levels and some could show moderate to rapid employment growth. Any major change in the key assumptions could lead to any one of the scenarios.

## Fairbanks Employment Forecast: 1988-1989

By Neal Fried

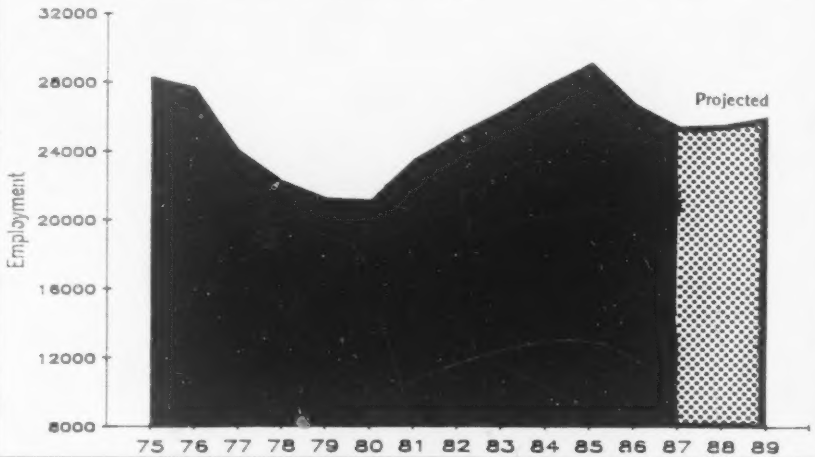
> *"The economic forecaster . . . is disliked when his prophecies are ominous: he is distrusted when they are cheerful and he is reviled when they turn out wrong. Nevertheless, the forecaster survives and even prospers because business decision makers feel that they need him."*
> *Leonard Silk, 1970*

### The Outlook Improves

After losing 3,650 jobs over the past two years, Fairbanks' economy will begin to stabilize in 1988 and 1989. While we will not see a strong recovery there will be a period of convalescence and slow recovery (Figure 1). The annual rate of growth for 1988-1989 will be slightly shy of 1%. This compares to an annual growth rate of 5.5% for the 1980-1985 period. Though the projected growth pales in comparison to 1980-85, any growth is a milestone in its own right because it signifies an end to the recession in Fairbanks.

The growth will be modest enough that individuals and businesses may not perceive a great deal of change. However, layoffs in most sectors of the economy will be fewer and some industries will actually expand. In late 1987 signs of improvement in Fairbanks' economy began to appear. State government (including the University), Fairbanks' largest basic sector employer, was no longer sustaining losses. By early 1988 some employment growth was evident. Retail trade's employment levels also recovered, a possible indication of a return of consumer confidence and in reaction to the growing military presence. Construction continues to lose ground, but these losses have moderated considerably. Fairbanks' remaining industry losses have either moderated or have come to an end.

Figure 1
Fairbanks Employment 1975-1989



### Key Assumptions

Fairbanks' employment forecast is predicated on a set of key assumptions. A change in any one of the following factors could have a profound influence on Fairbanks' economy. In addition to these key assumptions, other assumptions have been made which will be discussed in the general text of the article.

1) Oil prices: $14-17/barrel.
2) State operating budget: Approximately $2.0 billion.
3) The Army will deploy 1,034 additional soldiers at Fort Wainwright in Federal fiscal year (FY) 1988 and an additional 277 in FY 1989.
4) Military related construction spending during FY 1988 will exceed $70 million and in 1989 it will be slightly less

Table 1
Industry Employment Forecast
Fairbanks
1988-1989

| | 1987 | 1988 | Percent Change | 1989 | Percent Change |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 25,500 | 25,600 | 0.4 | 26,050 | 1.8 |
| Mining | 100 | 100 | 0.0 | 100 | 0.0 |
| Construction | 1,600 | 1,550 | -3.1 | 1,500 | -3.2 |
| Manufacturing | 500 | 550 | 10.0 | 550 | 0.0 |
| Trans. Comm. & Utilities | 2,200 | 2,250 | 2.3 | 2,300 | 2.2 |
| Trade | 5,500 | 5,600 | 1.8 | 5,700 | 1.8 |
| Wholesale | 700 | 750 | 7.1 | 750 | 0.0 |
| Retail | 4,700 | 4,800 | 2.1 | 4,850 | 1.0 |
| Finance-Ins. & R.E. | 900 | 850 | -5.6 | 850 | 0.0 |
| Services & Misc. | 5,500 | 5,600 | 1.8 | 5,700 | 1.8 |
| Government | 9,100 | 9,100 | 0.0 | 9,350 | 2.8 |
| Federal | 2,800 | 2,800 | 0.0 | 2,900 | 3.6 |
| State | 3,700 | 3,750 | 1.4 | 3,800 | 1.3 |
| Local | 2,600 | 2,550 | -1.9 | 2,650 | 3. |

1) Oil prices: $14-17/barrel.
2) State operating budget: Approximately $2.0 billion.
3) The Army will deploy 1,034 additional soldiers at Fort Wainwright in Federal fiscal year (FY) 1988 and an additional 277 in FY 1989.
4) Military related construction spending during FY 1988 will exceed $70 million and in 1989 it will be slightly less.

### The Light Infantry Brigade

Since 1986 1,400-1,500 additional soldiers have arrived in Fairbanks. If we were to count these soldiers in our wage and salary or labor force statistics, employment during the next two years would grow quite dramatically. This is not done because uniformed military are not counted in wage and salary statistics nor civilian labor force numbers, but instead are accounted for separately. In addition to this defined limitation, an increase in uniformed military personnel does not represent direct new job opportunities for Fairbanks residents. The soldiers, their spouses and dependents also compete for jobs in the local labor market, which offsets some of the employment opportunities generated in the community by the military activity.

Nevertheless, the military impact in 1988 and 1989 has been treated cautiously in this forecast since the Army's deployment plans continue to be scaled back due to actual or proposed cuts by the Pentagon. An important example of this is what is occurring with federal civil service employment. Presently there are plans to cut federal civil service by 125 positions. In previous scenarios, given the approximate ratio of 3 soldiers per civilian employee, federal government employment was expected to grow by as much as 400 positions. Apparently this is not going to happen because of budget problems. This represents a major potential loss to the Fairbanks economy.

However, there are civilians employed on Fort Wainwright who are federal civilian employees but are not civil service, and are not funded by the Pentagon budget. These federal employees are employed by self supporting enterprises that provide services to the soldiers. They include the postal exchange (PX), recreational activities, day care and a variety of other concessionaires. Their employment is expected to grow slightly because they have more soldiers to serve. You will notice in Table 1 that we have not forecasted any growth for federal government—a surprising phenomenon considering the major expansion of uniformed personnel.

### Construction

The construction industry will be one of the major beneficiaries of the planned military expansion during the next two years. In FY88 approximately $70 million is expected to be spent for military construction in Fairbanks (which is about equal with 1987 levels), and a slightly smaller number is projected for 1989. Without this activity, construction's employment would continue to fall, possibly to levels not seen since the 1960s. Even with the expected military construction, no growth is forecast for the industry. This will put the industry's employment at 1979 levels, which was hardly a brisk year for construction.

Commercial and public building construction is not projected to experience any rebound during the forecast period because of existing excess capacity in the market and fewer public construction dollars. Last year's dollar valuation of building and zoning permits fell to $34.7 million, the lowest since pre-pipeline construction days. Construction of the $12.5 million Fairbanks Multipurpose Community Activity Center will provide some relief to this sector of construction but not enough to put it on a growth path. On a somewhat brighter note, the Department of Transportation estimates highway construction activity should remain at least on par with last year. On the residential side there were indications in late 1987 and early 1988 that sales began to improve, which could mean a slight upswing in residential construction.

### State and Local Government

State government is one of the brighter spots, though it is only projected to grow about 1% per year. State employment levels pulled out of the slump in late 1987, led by the University. Because a steady operating budget is projected, expect employment to inch upwards.

Local government's picture is mixed. The education side of local government looks relatively healthy after experiencing losses in 1987. Employment will remain level in 1988 and grow slightly in 1989 in response to a projected increase in students and an improved student/teacher ratio. The borough, city and the Municipal Utilities System will continue to lose ground in 1988 and stabilize in 1989. Deterioration of assessed property values and resistance to proposals to tap alternate sources of operating revenues preclude growth during the forecast period.

### Promising News in the Secondary Sector

Retail trade and service employment are forecasted to move ahead approximately 2% per year during the next two years. Retail trade and services will benefit disproportionately from additional military personnel. These two industries will also benefit from what is expected to be a good tourism season in 1988. Though no good measure of consumer confidence exists, economic uncertainty contributed to employment declines in the secondary sectors when people delayed purchases because of the uncertainty. Those people whose incomes were not affected by the recession but who delayed purchases may now choose to spend more than they have during the past two years.

Only the finance-insurance and real estate sector is not projected to improve. The surplus of real estate and weakness in the financial sector will continue to put downward pressure on this industry. It will not be until 1989 when employment in this industry will finally stabilize.

### Tourism

A healthy year for tourism is forecasted. According to most major tour operators, 1988 is looking good and there are strong indications that the devalued dollar will entice a growing number of foreign tourists. The weak dollar should also make Alaska a more attractive place for domestic visitors. Gasoline prices remain low, which should insure a healthy flow of tourists coming to Alaska via motor vehicle.

### Overview: Labor Market Remains Tough but Improves

Though the employment picture is projected to improve during the next two years, employment opportunities will be far from plentiful. High unemployment will continue to prevail and the labor market will remain extremely competitive. Only a small percent of the jobs lost during the past two years will be reclaimed. In spite of this, job seekers should still find a considerably improved labor market for a number of reasons. Many potential job seekers have left which means there will be less competition for jobs which become available. The national labor market remains robust; thus fewer job seekers from the lower 48 will be seeking opportunities in Alaska. Finally, an improving economy, although moving at a snail's pace, brightens the overall outlook.

# Southeast Alaska Employment Forecast: 1988-1989

By Brian Rae

Total employment in Southeast is expected to increase slightly during 1988 and 1989, reversing a two year decline (Figure 1). Unlike recent periods of overall employment growth, this increase will be fueled by the manufacturing industries. Those industries with high losses over the past two years, such as government and construction, should slow their rapid declines and remain relatively stable over the next two years.

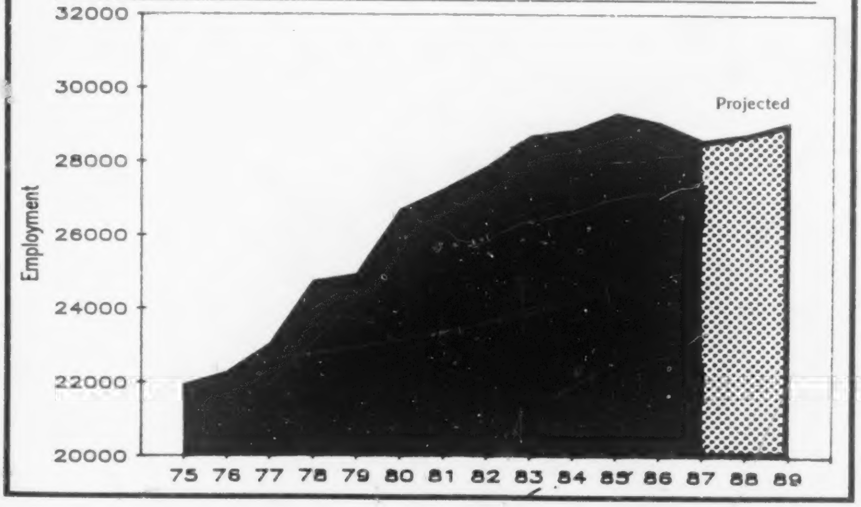
The largest swing in employment will occur during 1988. After a drop of 1.6% during 1987, employment will increase by one-half of one percent (Table 1). An increase of approximately 1% is expected to follow in 1989. Much of this recovery will be in response to demands for Alaska products from outside the state. Although active during the recession years, this increased demand and associated employment has been overshadowed by employment decreases caused by the decline in the price of Alaska's oil. As other sectors slow their employment losses, the impact of this increased demand will become more apparent in Southeast's economy.

## Assumptions

Southeast Alaska's economic decline will abate for three general reasons. First, Southeast industries reliant on the price of oil, mainly government, have cut back to sustainable levels given current price projections. Second, the wave of apprehension concerning the economy's ability to survive has for the most part passed. Unlike the last two years, 1988 and 1989 might well be the years when property bailouts are seen as investment opportunities. Third, favorable exchange rates will continue to spur demand for Alaskan products. The Japanese market in particular has boosted demand for products such as timber and fish. Although the dollar might appreciate somewhat in the world currency markets, it should not appreciate enough to kill this recent increased demand for Alaska's products.

One of Southeast Alaska's smallest industries will show a 300% increase by 1989 with the addition of the Green's Creek mine this year. These forecasts also assume that Southeast's largest industry, state government, will hold steady over the period.

Figure 1
Southeast Alaska Employment 1975-1989



## Construction

Overall construction employment is expected to remain stable through the forecast period, a welcomed change from its constant declines since 1983. Following the capital move issue's resolution, pent up demand led to a construction boom. After this increased construction activity, annual average employment decreased by over 500 between 1985 and 1986. Accounting for as much as 7% of Southeast employment during the boom, construction will account for approximately 3.7% during the next two years. The current excess capacity in Juneau's residential and commercial real estate sectors will stymie growth in these sectors in Southeast for the next several years.

Public works projects scheduled for 1988 and 1989 will bring the construction industry out of its current slide. These include Wrangell's hospital expansion, several airport expansions, water and sewer service extensions, dock renovations, Juneau's city library and the new University of Alaska-Southeast library. Forecasted construction employment assumes 1986 levels to be near the minimum levels required to maintain existing structures and facilities.

### Manufacturing

Responding more to outside demand than do other sectors of Southeast's economy, all manufacturing industries show strong employment growth over the next two years. After hitting a low point in employment in 1984, manufacturing has grown every year since. While only 10.5% of Southeast's employment was in manufacturing in 1984, almost 15% will be by the end of the forecast period. This employment share is the same as 1981 levels.

The forest products industry will grow steadily, continuing a trend which started in 1984 and has accelerated since that time. With recent increased demand, some mills which closed in the early 1980s will reopen over the next two years. Klawock's timber mill recently reopened, spurring employment in the area. Other mills currently in production are increasing their hours and shifts, while some new facilities have been proposed. Chilkoot Lumber Company is planning to bring on a second shift beginning in early 1988, while Louisiana Pacific Corporation has authorized Ketchikan Pulp Company to build a sawmill in Wards Cove. This new mill should be on line in September, 1988. Many mills are now remaining open for 11 months, compared to 7 or 8 months just a few years ago.

Even with moderate revaluation of the dollar, Alaska timber products should see demand sufficient to maintain modest employment growth. World supplies of dissolving pulp have dropped with the closure of three overseas producers over the last two years—Southeast's two dissolving pulp mills should experience some increased demand. Several major fires in the U.S. Pacific Northwest should strengthen Alaska's position in the market. Two production factors have made Alaska timber processing more competitive. Labor disputes in British Columbia, and employer/employee agreements for wage concessions and profit sharing deals have helped make Alaska timber products more competitive in the market.

Seafood processing is the other bright spot in Southeast's employment. Although 1987 employment of 1,100 was less than expected, mainly because of a poor pink salmon season, employment should rebound to approximately 1,200 over the next two years. Three factors will determine this employment gain. First, as mentioned above, 1987 saw a very weak pink salmon fishery. All other things being equal, a normal run of pinks in 1988 should create increased employment. Second, Southeast processors expect to continue to participate in the strong bottomfish markets. Last year was quite good for black cod, and most processors are expecting similar catches during 1988. Finally, many processors are attempting to spread out their workloads, thereby providing longer term employment for their workers. Most of these jobs entail final processing, packaging, and labeling of the products.

One area of concern to processors,

Table 1
Southeast Alaska Employment Forecast
1988-1989

| | 1987 | 1988 | Percent Change | 1989 | Percent Change |
|---|---|---|---|---|---|
| Nonag. Wage and Salary | 28,600 | 28,800 | 0.7 | 29,200 | 1.4 |
| Construction | 1,100 | 1,100 | 0.0 | 1,100 | 0.0 |
| Manufacturing | 4,100 | 4,275 | 4.3 | 4,375 | 2.3 |
| Seafood Processing | 1,100 | 1,150 | 4.6 | 1,200 | 4.4 |
| Lumber & Paper Prod. | 2,800 | 2,900 | 3.6 | 2,925 | 0.9 |
| All Other Manufacturing | 200 | 225 | 12.6 | 250 | 1.1 |
| Trans. Comm. & Utilities | 2,100 | 2,100 | 0.0 | 2,150 | 2.4 |
| Trade | 4,525 | 4,525 | 0.0 | 4,575 | 1.1 |
| Wholesale | 400 | 400 | 0.0 | 400 | 0.0 |
| Retail | 4,150 | 4,150 | 0.0 | 4,175 | 0.6 |
| Finance Insur. & R.E. | 1,050 | 1,075 | 2.4 | 1,075 | 0.0 |
| Services, Mining & Misc. | 4,700 | 4,850 | 3.2 | 5,000 | 3.1 |
| Government | 11,000 | 10,900 | -0.9 | 10,900 | 0.0 |
| Federal | 1,950 | 1,950 | 0.0 | 1,950 | 0.0 |
| State | 4,975 | 4,975 | 0.0 | 4,975 | 0.0 |
| Local | 4,100 | 4,000 | -2.4 | 3,950 | -1.3 |

and one which might dilute potential employment gains in the industry, is overlapping seasons. Some canneries have been forced to contract with floating processors to increase their capacity. These floating processors come equipped with their own crews, limiting the number of jobs available for local residents. Coordinating fishery openings to optimize land based processors' capacities could lead to large increases in employment for Southeast residents.

Employment levels in seafood processing, like forest products, are somewhat dependent upon international currency markets. Employment forecasts for seafood processing assume the same currency movements stated above.

### Transportation, Communication and Utilities

This sector has recovered from its low point from 1983 through 1985. Employment through the forecast period will rise only slightly, and not be evenly distributed throughout the sector.

The communications and utilities industries will continue to show weakness. Employment during 1987 in this sector has been very weak. Population swings and increased competition within the communications sector seem to be large contributing factors to this weakness.

Transportation services should increase over the forecast period, making up for losses in the communications and utilities sectors. One of the largest impacts on the air transportation sector will be increased mining activities in Southeast and Canada. Supplying Green's Creek mine will boost this sector in northern Southeast. In the last nine months of 1987, work at Canada's Skyline mine gave Wrangell 3,600 additional flights. City officials expect two to three times that impact in 1988. Echo Bay Mines is using Haines as its mobilization point, causing increased air and water traffic in the area. Exploratory operations throughout the area will also positively impact these sectors.

Another possible impact will be the ability of other Southeast companies to win contracts to supply Canadian mines. Canadian mining companies, looking to reduce costs and prolong the life of their investments, are seeking the lowest cost suppliers of goods, whether Canadian or Alaskan. Several mining companies have expressed a need for a road system to reduce their operating costs, with the incentive of increased contracts for the area willing to subsidize such a project. Even with limited contracts and mining activities from Skyline in 1987, city officials estimated that an additional $1 Million flowed through Wrangell's economy. If Alaskan firms win more such contracts, mining's impacts can go a long way towards diversiying the Southeast economy.

Tourism is expected to increase somewhat over the forecast period. In 1986, this industry saw very high traffic caused by several factors. Nineteen eighty-seven saw tourist traffic down to more traditional levels. Much of this increase in tourism will, however, be independent travelers. For the transportation industry, tourism will maintain its relative importance throughout the forecast period.

### Government

Government employment is forecast to continue downward, reaching a low in 1988 and then holding steady in 1989. At that time, employment levels will equal those in 1981, the year before state government employment increased rapidly. As a share of total employment, government will see losses over the next two years.

State government in Southeast is forecast to remain at 1987 levels for the next two years. This assumption is made for two reasons. Since the largest share of state workers are still in the midst of contract negotiations, there is some flexibility in the wage structure. After reviewing revenue projections, wage or benefit concessions could be made if needed. It is assumed that a contract will be reached which will help maintain current employment levels. Also, further cuts in state employment will be difficult without directly impacting programs, a course of action not normally taken during an election year. Recent cuts trimmed and consolidated programs, but did so without noticeably cutting back service to the public. At this time, many state agencies are at maintenance staffing levels, and additional cuts will be noticed in reductions in their services.

Federal employment in Southeast has fallen in every year since 1980, from 2,500 to only 1,950 in 1987. For the forecast period, employment is projected to remain at 1,950. Two important factors could affect employment, particularly by 1989. A change in Federal administration, if it reverses the declines in federal employment, could impact Southeast government employment. The other factor, although considered unlikely, would be the selection of a Navy home port in Southeast Alaska. Even if this were to occur, it would affect only the last part of this two year forecast.

Local government employment is projected to continue its fall through 1989, but not at the precipitous rate experienced between 1986 and 1987. Compared to 1987 employment of 4,100, the forecast years will see employment stabilize at approximately 4,000.

### Mining

Of all industries, mining shows the greatest employment growth on a percentage basis. Employment will increase from less than 100 in 1987 to more than 250 by 1989 with additional employment at the Green's Creek mine. As mentioned earlier, other sectors will reap benefits from this employment increase.

Both Wrangell and Haines have benefited from mining activities in Canada. As mentioned above, Wrangell air traffic increased sharply last year. As production from Canada's Skyline mine gets underway, transportation services will see even greater economic impacts. Many local companies, from machine shops to food stores, hotels and bars, have seen business increase.

Mining operations are, however, extremely dependent on world prices. Most of the operations being considered in Alaska are extremely tenuous proposals, only feasible if minerals' prices remain high. Given the volatility of the markets, many projects have been postponed or canceled. The Quartz Hill molybdenum mine project, after many years of study and much investment, will probably not be completed unless conditions change.

Alaska is rich in minerals. If prices increase to the point where mining operations become economically feasible, many companies are prepared to invest in Alaskan mines. Until then, mining should continue to be a small industry with strong growth.

### Secondary Industries

Trade, though growing slightly, will lose in overall employment share during the next two years. Finance, insurance and real estate will also show some growth, but will not regain the 10% employment lost between 1986 and 1987.

Services will lose in its total employment share, but has and will continue to show steady growth over the next two years. Except for a small decline between 1984 and 1985, the service sector has grown steadily over the last 15 years.

### Conclusions

Employment in Southeast will turn around during 1988, posting an overall increase of 0.6% compared to 1987 levels. Most of this employment growth will be created through the natural resource industries of mining, wood products, and seafood processing. Some positive effects will be felt in other industries because of this basic sector growth.

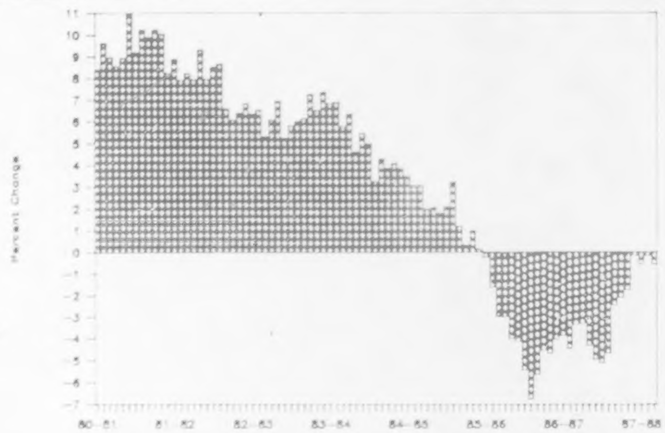
Employment will continue to rise in 1989, with a 1.1% overall increase. No industry is expected to show substantial declines between 1988 and 1989, although many will do little more than remain stagnant.

The past mainstay of Southeast employment, government, will continue to decline as a percentage of total employment over the forecast period. Losses will be offset by employment gains in services, which will show moderate growth as Southeast's economy matures.

# Alaska's Employment Scene

By Neal Fried

Figure 1
Alaska Employment
Over the Year Change by Month



February's employment numbers demonstrate Alaska's economy is not quite out of the woods, but it is getting ever closer. All that separates February levels with year-ago levels are 1,100 jobs or 0.6% (Figure 1). Not all areas of the state or industries are performing equally and this is making the road to recovery somewhat unusual. Past recoveries often began in Alaska's larger urban areas and spread to the rest of the state, but today it is quite the reverse.

"Small is beautiful" might come to mind when discussing Alaska's present comeback. Alaska's small and medium size communities are largely responsible for the improving employment figures. Fishing and timber) not construction and government) are pulling the economy out of the doldrums. Places like Kodiak are prospering because of the bottomfishery. Seward and Homer are becoming home bases to bottomfishing fleets. Communities such as Dutch Harbor, Unalaska, Adak, Shemya and others on the Aleutian Islands are benefiting both from the bottomfishery and an increase in military related activity. Timber employment, which continues to climb, takes place almost entirely in Southeast Alaska's small and medium sized communities. New mining ventures: Red Dog near Kotzebue Sound; Green's Creek on Admiralty Island; and Inspiration Mining's floating dredge the "Bima" in Nome are also contributing to a recuperating economy. All of this combined activity is helping to make the transition between an economy which is losing ground to one that is growing.

## The Industry Picture

Not all of the improvement in the economy can be attributed to the timber, mining and fishing industries. Many industries which were victimized by the recession in 1986-1987 have now stabilized; some have begun to grow and those industries which are still declining are tempering their losses (Table 1).

### Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/<br>2/88 | r/<br>1/88 | 2/87 | 1/88 | 2/87 |
| Nonag. Wage & Salary | 198,200 | 196,300 | 199,300 | 1,900 | -1,100 |
| Mining | 8,000 | 8,300 | 7,900 | -300 | 100 |
| Construction | 7,400 | 7,600 | 8,700 | -200 | -1,300 |
| Manufacturing | 11,800 | 11,300 | 10,000 | 500 | 1,800 |
| Seafood Processing | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Lumber & Wood Prod. | [illegible] | [illegible] | [illegible] | [illegible] | 200 |
| All Other Manuf. | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Transportation | [illegible] | [illegible] | [illegible] | [illegible] | 400 |
| Trucking & Warehousing | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Water Transportation | [illegible] | [illegible] | 800 | [illegible] | [illegible] |
| Air Transportation | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| All Other Transportation | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Trade | [illegible] | [illegible] | 38,400 | -400 | [illegible] |
| Wholesale | 7,100 | 7,100 | 7,200 | 0 | -100 |
| Retail | 31,200 | 31,600 | 31,200 | -400 | 0 |
| Gen. Mer. & Apparel | 4,500 | 4,700 | 4,400 | -200 | 100 |
| Food Stores | 5,700 | 5,700 | 5,500 | 0 | 200 |
| Eating & Drinking Pl. | 10,900 | 10,900 | 11,400 | 0 | -500 |
| All Other Retail | 10,100 | 10,300 | 9,900 | -200 | 200 |
| Finance-Ins. & R.E. | 10,600 | 10,700 | 11,400 | -100 | -800 |
| Services | 39,100 | 39,500 | 40,300 | -400 | -1,200 |
| Government | 66,200 | 64,000 | 66,600 | 2,200 | -400 |
| Federal | 17,800 | 17,900 | 17,000 | -100 | 800 |
| State | 19,200 | 18,000 | 19,200 | 1,200 | 0 |
| Local | 29,200 | 28,100 | 30,400 | 1,100 | -1,200 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date 1987

p/ Denotes Preliminary Estimates
r/ Denotes Revised Estimates

Table 2

# Nonagricultural Wage and Salary Employment By Place of Work

## Anchorage

|  | p/ 2/88 | r/ 1/88 | 2/87 | Changes From: 1/88 | 2/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 96,250 | 96,250 | 98,650 | 0 | -2,400 |
| Mining | 3,350 | 3,250 | 3,150 | 100 | 200 |
| Construction | 3,850 | 4,100 | 4,650 | -250 | -800 |
| Manufacturing | 1,850 | 1,850 | 2,050 | 0 | -200 |
| Transportation | 8,800 | 8,800 | 8,750 | 0 | 50 |
| Trucking & Warehousing | 1,300 | 1,350 | 1,250 | -50 | 50 |
| Water Transportation | 250 | 200 | 250 | 50 | 0 |
| Air Transportation | 3,000 | 3,000 | 3,000 | 0 | 0 |
| All Other Transportation | 4,250 | 4,250 | 4,250 | 0 | 0 |
| Trade | 22,500 | 22,700 | 22,550 | -200 | -50 |
| Wholesale | 5,100 | 5,200 | 5,500 | -100 | -400 |
| Retail | 17,400 | 17,500 | 17,050 | -100 | 350 |
| Gen Merch. & Apparel | 2,300 | 2,400 | 2,250 | -100 | 50 |
| Food Stores | 2,950 | 2,950 | 2,750 | 0 | 200 |
| Eating & Drinking Pl. | 6,600 | 6,500 | 6,750 | 100 | -150 |
| All Other Retail | 5,550 | 5,650 | 5,300 | -100 | 250 |
| Finance-Ins. & R.E. | 7,050 | 7,050 | 7,650 | 0 | -600 |
| Services | 22,900 | 22,950 | 23,450 | -50 | -550 |
| Government | 25,950 | 25,550 | 26,400 | 400 | -450 |
| Federal | 10,450 | 10,550 | 10,050 | -100 | 400 |
| State | 6,850 | 6,350 | 6,900 | 500 | -50 |
| Local | 8,650 | 8,650 | 9,450 | 0 | -800 |

## Fairbanks

|  | p/ 2/88 | r/ 1/88 | 2/87 | Changes From: 1/88 | 2/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 23,850 | 23,450 | 24,200 | 400 | -350 |
| Mining | 50 | 50 | 100 | 0 | -50 |
| Construction | 1,150 | 1,150 | 1,150 | 0 | 0 |
| Manufacturing | 450 | 500 | 500 | -50 | -50 |
| Transportation | 1,900 | 1,900 | 2,100 | 0 | -200 |
| Trucking & Warehousing | 300 | 300 | 350 | 0 | -50 |
| Air Transportation | 300 | 300 | 350 | 0 | -50 |
| All Other Transportation | 1,300 | 1,300 | 1,400 | 0 | -100 |
| Trade | 5,050 | 4,950 | 4,800 | 100 | 250 |
| Wholesale | 700 | 650 | 750 | 50 | -50 |
| Retail | 4,350 | 4,300 | 4,050 | 50 | 300 |
| Food Stores | 750 | 750 | 650 | 0 | 100 |
| All Other Retail | 3,600 | 3,550 | 3,400 | 50 | 200 |
| Finance-Ins. & R.E. | 850 | 850 | 900 | 0 | -50 |
| Services | 5,200 | 5,200 | 5,350 | 0 | -150 |
| Government | 9,200 | 8,850 | 9,300 | 350 | -100 |
| Federal | 2,700 | 2,700 | 2,700 | 0 | 0 |
| State | 3,950 | 3,650 | 3,900 | 300 | 50 |
| Local | 2,550 | 2,500 | 2,700 | 50 | -150 |

## Anchorage-MatSu

|  | p/ 2/88 | r/ 1/88 | 2/87 | Changes From: 1/88 | 2/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 102,250 | 102,250 | 105,050 | 0 | -2,800 |
| Mining | 3,350 | 3,250 | 3,150 | 100 | 200 |
| Construction | 4,000 | 4,250 | 4,850 | -250 | -850 |
| Manufacturing | 1,900 | 1,900 | 2,100 | 0 | -200 |
| Transportation | 9,400 | 9,450 | 9,450 | -50 | -50 |
| Trade | 23,900 | 24,100 | 24,150 | -200 | -250 |
| Finance-Ins. & R.E. | 7,450 | 7,500 | 8,100 | -50 | -650 |
| Services | 23,950 | 24,000 | 24,450 | -50 | -500 |
| Government | 28,300 | 27,800 | 28,800 | 500 | -500 |

## Interior

|  | 2/88 | p/ 1/88 | r/ 2/87 | Changes From: 1/88 | 2/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 27,450 | 27,000 | 27,600 | 450 | -150 |
| Mining | 200 | 200 | 200 | 0 | 0 |
| Construction | 1,200 | 1,200 | 1,200 | 0 | 0 |
| Manufacturing | 500 | 500 | 500 | 0 | 0 |
| Transportation | 2,250 | 2,200 | 2,400 | 50 | -150 |
| Trade | 5,400 | 5,400 | 5,050 | 0 | 350 |
| Finance-Ins. & R.E. | 900 | 900 | 1,000 | 0 | -100 |
| Services | 5,450 | 5,450 | 5,750 | 0 | -300 |
| Government | 11,550 | 11,150 | 11,500 | 400 | 50 |

## Gulf Coast

|  | p/ 2/88 | r/ 1/88 | 2/87 | Changes From: 1/88 | 2/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 17,850 | 17,900 | 17,250 | -50 | 600 |
| Mining | 750 | 750 | 650 | 0 | 100 |
| Construction | 650 | 700 | 850 | -50 | -200 |
| Manufacturing | 3,000 | 3,000 | 2,350 | 0 | 650 |
| Seafood Processing | 2,400 | 2,400 | 1,750 | 0 | 650 |
| All Other Manufacturing | 600 | 600 | 600 | 0 | 0 |
| Transportation | 1,250 | 1,300 | 1,250 | -50 | 0 |
| Trade | 3,250 | 3,300 | 3,100 | -50 | 150 |
| Wholesale | 400 | 400 | 400 | 0 | 0 |
| Retail | 2,850 | 2,900 | 2,700 | -50 | 150 |
| Finance-Ins. & R.E. | 600 | 600 | 600 | 0 | 0 |
| Services | 2,900 | 3,000 | 3,000 | -100 | -100 |
| Government | 5,450 | 5,250 | 5,450 | 200 | 0 |
| Federal | 500 | 500 | 500 | 0 | 0 |
| State | 1,500 | 1,400 | 1,500 | 100 | 0 |
| Local | 3,450 | 3,350 | 3,450 | 100 | 0 |

## Southeast Alaska

|  | 2/88 | p/ 1/88 | r/ 2/87 | Changes From: 1/88 | 2/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 26,550 | 26,050 | 26,350 | 500 | 200 |
| Construction | 800 | 800 | 950 | 0 | -150 |
| Manufacturing | 3,250 | 3,150 | 2,950 | 100 | 300 |
| Seafood Processing | 700 | 900 | 600 | -200 | 100 |
| Lumber & Paper Prod. | 2,350 | 2,050 | 2,150 | 300 | 200 |
| All Other Manufacturing | 200 | 200 | 200 | 0 | 0 |
| Transportation | 1,850 | 1,800 | 1,800 | 50 | 50 |
| Trade | 4,150 | 4,150 | 4,050 | 0 | 100 |
| Wholesale | 400 | 350 | 350 | 50 | 50 |
| Retail | 3,750 | 3,800 | 3,700 | -50 | 50 |
| Finance-Ins. R.E. | 1,050 | 1,050 | 1,050 | 0 | 0 |
| Services | 4,200 | 4,200 | 4,300 | 0 | -100 |
| Government | 11,100 | 10,800 | 11,200 | 300 | -100 |
| Federal | 1,950 | 1,950 | 1,800 | 0 | 150 |
| State | 5,000 | 4,850 | 5,100 | 150 | -100 |
| Local | 4,150 | 4,000 | 4,300 | 150 | -150 |

**Oil** is one of Alaska's industries on a comeback in 1988, after two years of decline. According to the latest Hughes Rig Count for Alaska, the number of rigs operating in February was 11 compared to 7 last year. The increase in drilling rig activity and exploration has pushed February's oil industry employment 7% above year-ago levels. Recent declines in oil prices are making the industry nervous, and were reportedly responsible for the delay of the Milne Point project. Unless a free fall in oil prices occurs reminiscent of 1986, overall oil industry employment will continue to grow in the upcoming months.

**Retail trade** has also begun to make a rebound. After losing 3,100 jobs over the past two years, employment stabilized in February. Generally speaking, retail trade is population and/or income driven, both of which are unlikely to be presently growing. A more plausible explanation might be that nebulous economic phenomenon-consumer confidence. After two years of uncertainty and turmoil, consumers who remained employed but delayed purchases, are now feeling confident enough to make these purchases.

Though rebound would be too strong a word to use to explain what is happening to **state government**, firming up would be quite accurate. State government employment, which represents almost 10% of the state's wage and salary work force (19,200 jobs) is presently employing as many people today as a year ago. Losses in state government which began in late 1986 and continued in 1987, have come to an end in 1988.

For now, **fish processing** employment remains Alaska's employment machine—1,800 above year-ago levels. Without seafood processing, total industry employment would remain substantially below year-ago levels. Because this tends to be a low wage industry (The average annual earnings for residents in 1986 were $5,420 for food processing compared to an overall average of $20,137.) these jobs have a smaller economic impact on Alaska's economy than most of the jobs lost over the past two years. Compounding this problem is the fact that in 1986 57% of the food processing workers were nonresidents, compared to an 18.8% nonresident factor for the overall work force. The nonresident employment represents a major leakage to the economy. It will therefore take considerably longer for the Alaskan economy to recover from lost wages and income brought on by the recession than to recoup employment losses.

### Table 3
### Alaska Hours and Earnings for Selected Industries [1/2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 2/88 | R/ 1/88 | 2/87 | P/ 2/88 | R/ 1/88 | 2/87 | P/ 2/88 | R/ 1/88 | 2/87 |
| Mining | 1,080.64 | 1,165.96 | 1,170.18 | 46.7 | 48.2 | 49.5 | 23.14 | 24.19 | 23.64 |
| Construction | 837.32 | 836.70 | 892.80 | 35.3 | 35.2 | 38.4 | 23.72 | 23.77 | 23.25 |
| Manufacturing | 457.43 | 460.60 | 510.14 | 38.7 | 37.6 | 40.2 | 11.82 | 12.25 | 12.69 |
| Seafood Processing | 301.37 | 311.83 | 273.60 | 38.1 | 36.6 | 38.0 | 7.91 | 8.52 | 7.20 |
| Lumber & Paper Prod | 572.97 | 547.96 | 643.14 | 38.3 | 37.2 | 43.9 | 14.96 | 14.73 | 14.65 |
| Trans., Comm. & Util. | 562.44 | 564.83 | 573.05 | 36.1 | 36.3 | 36.2 | 15.58 | 15.56 | 15.83 |
| Trade | 364.56 | 357.72 | 367.50 | 33.6 | 33.0 | 33.5 | 10.85 | 10.84 | 10.97 |
| Wholesale | 543.91 | 541.33 | 511.00 | 40.2 | 39.6 | 38.8 | 13.53 | 13.67 | 13.17 |
| Retail | 302.04 | 294.72 | 316.63 | 31.3 | 30.7 | 31.6 | 9.65 | 9.60 | 10.02 |
| Finance-Ins. & R.E. | 393.88 | 387.69 | 409.22 | 34.4 | 34.4 | 35.4 | 11.45 | 11.27 | 11.56 |

Benchmark March 1987

1/ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

2/ excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

### The Less Fortunate

**Construction** remains the biggest employment loser. Employment is 15% below year-ago levels. This is an improvement over the 21% rate of decline last year, but the picture remains grim. We now have to reach back to 1980 to find an equivalent year for construction employment. No turnaround in this industry is projected for the near term. On a seasonal basis, February usually represents the low point for this industry, so by March or April the industry should start posting some month-to-month employment gains.

Weakness also prevailed in the **finance-insurance and real estate** and **service** industries in February. The banking and insurance sectors remain major victims of the recession. Over-the-year employment losses for both banking and insurance are at double digit levels. The service sector's biggest weakness lies in engineering and architectural services—a casualty of the construction industry's collapse. But even in recession-proof industries, such as legal and social services, over-the-year employment levels have fallen. More resilient have been hotel and lodging and medical services.

**Local government** employment is still losing ground—though its losses are moderating. A declining population base, falling property valuation and a general resistance to revenue raising has continued to strap many local governments. Though no large layoffs are presently occurring, attrition and small layoffs are taking their toll.

### The Geographic Employment Picture

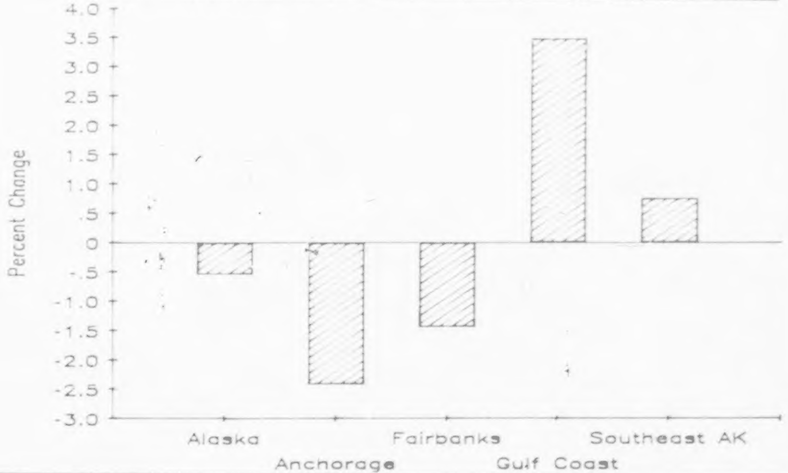
**Anchorage's** employment picture remains among the weakest in the state (Table 2). Over-the-year losses in February stand at 2.2%, an improvement over last February's 9.5% rate of decline but still one of the highest in the state (Figure 2). Construction employment continues to fall—February levels have fallen to approximately 1974 levels. Finance-insurance and real estate and services are the other big employment losers, showing 7.8% and 2.4% over-the-year declines respectively. There are some bright spots on Anchorage's employment scene. Anchorage's oil industry employment numbers are up after two years of losses. Retail trade is also looking considerably better—up by 350. The only sector of this industry still losing ground eating and drinking establishment employment. State government employment has virtually stabilized. As additional industries join these winners, Anchorage's total industry picture will be on its way to recovery.

**Fairbanks'** overall employment picture exhibited improvement in February (Table 2). Over-the-year industry employment was down 1% compared to 5% for all of 1987. These declines are becoming small enough, that it is possible employment gains will overcome employment losers and bring total employment declines to an end in the upcoming months. The industry picture is largely a mixture of small declines and increases.

**Gulf Coast's** total industry numbers are looking strong (Table 2). As in the statewide picture, seafood processing is responsible for this strong showing—particularly concentrated in Kodiak, Cordova and other select communities in the Gulf Coast. Most of the remaining industries remain relatively flat.

**Southeast's** economy is relatively upbeat (Table 2). Employment is up

Figure 2
Percent Change in Employment
February 1987-February 1988



both seasonally and over-the-year. This region's employment picture has consistently looked better than most other areas of the state during the past year, mainly due to a rebound in the timber industry and a rapidly expanding tourism sector.

### The Labor Market Begins To Improve

Alaska's unemployment rate climbed to 11.1% in February, putting it among the top five in the nation, but this looks considerably better than last February's rate of 13.3% (Table 4). What is more remarkable is how the number of unemployed declined from 31,605 in February 1987 to 26,528 this month.

Three basic ingredients are responsible for this lower unemployment rate. 1) At the top of the list is outmigration of the unemployed. 2) An extraordinarily good job market in much of the rest of the country has meant that fewer job seekers are coming to Alaska to seek their fortune. 3) Some of this improvement has come at the expense of the discouraged worker—that person who drops out of the job market because they assume no employment opportunities exist.

The first two ingredients, good or bad, are beginning to add up to an improving job market for the job seekers still here. The most important component to a significant economic turnaround is growth in the economy, and it is still missing. However, most indicators are beginning to demonstrate that this ingredient will not be as elusive in 1988 as it has been during the past two years.

## Table 4
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 2/88 | R/ 1/88 | 2/87 | P/ 2/88 | R/ 1/88 | 2/87 | P/ 2/88 | R/ 1/88 | 2/87 | P/ 2/88 | R/ 1/88 | 2/87 |
| Alaska Statewide | 238,627 | 233,793 | 236,940 | 26,528 | 25,381 | 31,605 | 11.1 | 10.9 | 13.3 | 212,099 | 208,412 | 205,335 |
| Anch.-MatSu Region | 125,912 | 124,105 | 126,911 | 12,021 | 11,541 | 14,202 | 9.5 | 9.3 | 11.2 | 113,891 | 112,564 | 112,709 |
| Anchorage Borough | 111,322 | 109,866 | 111,597 | 9,297 | 8,859 | 10,993 | 8.4 | 8.1 | 9.9 | 102,025 | 101,007 | 100,604 |
| MatSu Borough | 14,590 | 14,239 | 15,314 | 2,724 | 2,682 | 3,209 | 18.7 | 18.8 | 21.0 | 11,866 | 11,557 | 12,105 |
| Gulf Coast Region | 25,591 | 25,120 | 24,433 | 3,912 | 3,577 | 4,512 | 15.3 | 14.2 | 18.5 | 21,679 | 21,543 | 19,921 |
| Kenai Peninsula Bor | 16,426 | 16,295 | 15,882 | 2,886 | 2,840 | 3,440 | 17.6 | 17.4 | 21.7 | 13,540 | 13,455 | 12,442 |
| Kodiak Island Bor | 5,403 | 5,269 | 4,976 | 411 | 309 | 389 | 7.6 | 5.9 | 7.8 | 4,992 | 4,960 | 4,587 |
| Valdez-Cordova | 3,762 | 3,556 | 3,575 | 615 | 428 | 683 | 16.3 | 12.0 | 19.1 | 3,147 | 3,128 | 2,892 |
| Interior Region | 35,392 | 34,513 | 35,781 | 5,165 | 4,970 | 6,570 | 14.6 | 14.4 | 18.4 | 30,227 | 29,543 | 29,211 |
| Fairbanks North Star Br | 30,256 | 29,622 | 30,605 | 4,139 | 4,096 | 5,366 | 13.7 | 13.8 | 17.5 | 26,117 | 25,526 | 25,239 |
| Southeast Fairbanks | 2,166 | 2,089 | 2,140 | 403 | 366 | 436 | 18.6 | 17.5 | 20.4 | 1,763 | 1,723 | 1,704 |
| Yukon-Koyukuk | 2,970 | 2,802 | 3,036 | 623 | 508 | 768 | 21.0 | 18.1 | 25.3 | 2,347 | 2,294 | 2,268 |
| Northern Region | 7,881 | 7,582 | 7,939 | 738 | 766 | 980 | 9.4 | 10.1 | 12.3 | 7,143 | 6,816 | 6,959 |
| Nome | 3,031 | 2,959 | 3,102 | 313 | 365 | 454 | 10.3 | 12.3 | 14.6 | 2,718 | 2,594 | 2,648 |
| North Slope Borough | 2,766 | 2,639 | 2,721 | 137 | 130 | 159 | 5.0 | 4.9 | 5.8 | 2,629 | 2,509 | 2,562 |
| Northwest Arctic Bor | 2,084 | 1,984 | 2,116 | 288 | 271 | 367 | 13.8 | 13.7 | 17.3 | 1,796 | 1,713 | 1,749 |
| Southeast Region | 32,146 | 31,439 | 31,530 | 3,703 | 3,751 | 4,282 | 11.5 | 11.9 | 13.6 | 28,443 | 27,688 | 27,248 |
| Haines Borough | 869 | 849 | 848 | 152 | 151 | 161 | 17.5 | 17.8 | 19.0 | 717 | 698 | 687 |
| Juneau Borough | 13,608 | 13,277 | 13,335 | 925 | 931 | 1,186 | 6.8 | 7.0 | 8.9 | 12,683 | 12,346 | 12,149 |
| Ketchikan Gateway Br | 6,355 | 6,221 | 6,160 | 735 | 750 | 776 | 11.6 | 12.1 | 12.6 | 5,620 | 5,471 | 5,384 |
| Pr. of Wales-Outer Ktch | 2,541 | 2,539 | 2,534 | 503 | 555 | 581 | 19.8 | 21.9 | 22.9 | 2,038 | 1,984 | 1,953 |
| Sitka Borough | 3,813 | 3,654 | 3,670 | 402 | 334 | 402 | 10.5 | 9.1 | 11.0 | 3,411 | 3,320 | 3,268 |
| Skagway-Yakutat-Angn | 1,695 | 1,715 | 1,673 | 436 | 489 | 467 | 25.7 | 28.5 | 27.9 | 1,259 | 1,226 | 1,206 |
| Wrangell-Petersburg | 3,265 | 3,184 | 3,310 | 550 | 541 | 709 | 16.8 | 17.0 | 21.4 | 2,715 | 2,643 | 2,601 |
| Southwest Region | 11,705 | 11,034 | 10,346 | 989 | 776 | 1,059 | 8.4 | 7.0 | 10.2 | 10,716 | 10,258 | 9,287 |
| Aleutian Islands | 3,189 | 3,040 | 2,792 | 103 | 86 | 118 | 3.2 | 2.8 | 4.2 | 3,086 | 2,954 | 2,674 |
| Bethel | 4,495 | 4,253 | 3,970 | 384 | 317 | 407 | 8.5 | 7.5 | 10.3 | 4,111 | 3,936 | 3,563 |
| Bristol Bay Borough | 430 | 399 | 394 | 58 | 43 | 72 | 13.5 | 10.8 | 18.3 | 372 | 356 | 322 |
| Dillingham | 2,109 | 1,984 | 1,906 | 194 | 151 | 247 | 9.2 | 7.6 | 13.0 | 1,915 | 1,833 | 1,659 |
| Wade Hampton | 1,482 | 1,358 | 1,284 | 250 | 179 | 215 | 16.9 | 13.2 | 16.7 | 1,232 | 1,179 | 1,069 |

P/ Preliminary R/ Revised 1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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# ALASKA ECONOMIC TRENDS

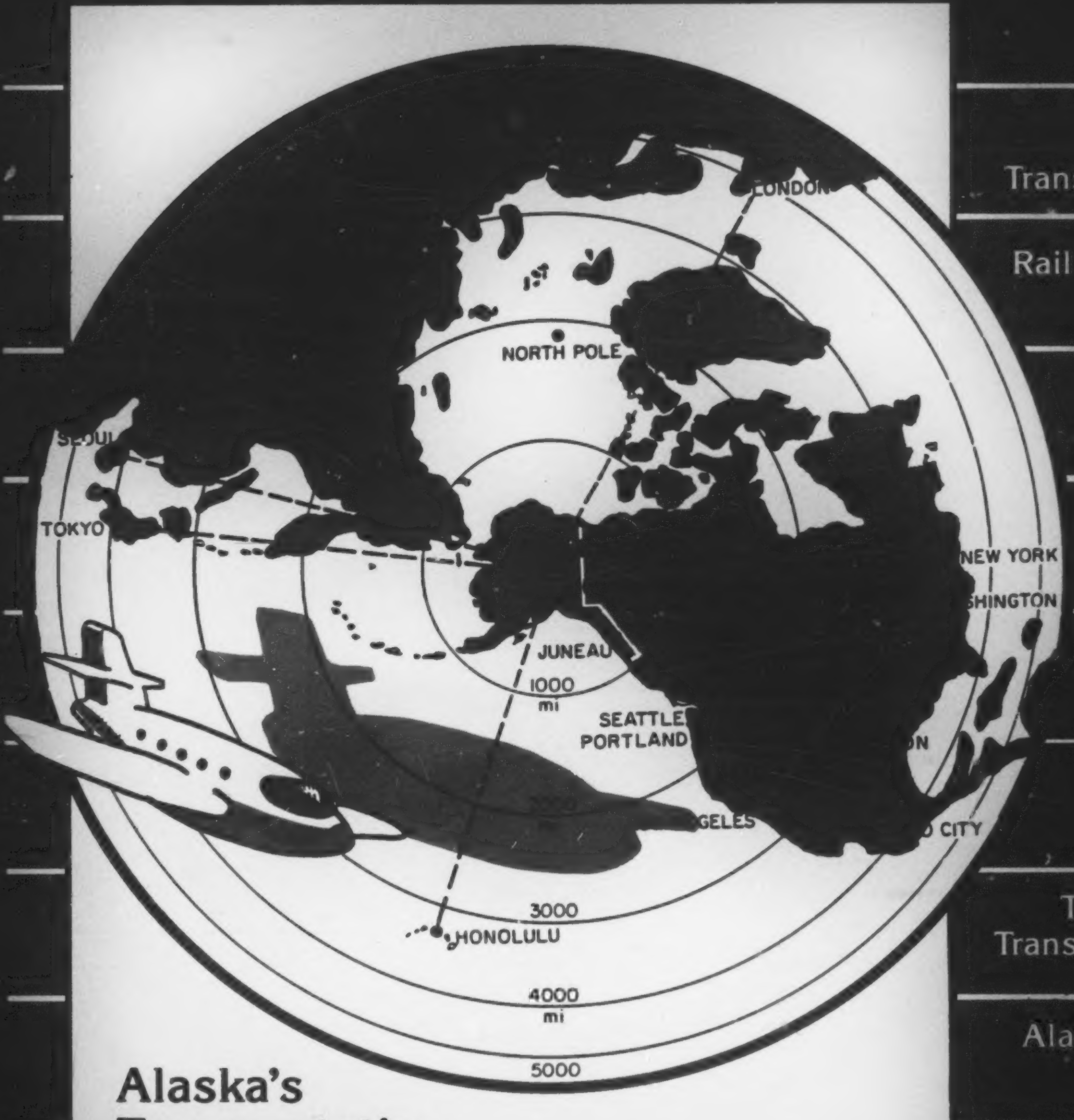
May
1988

Alaska's Air Transportation Industry

Rail Transportation in Alaska

Truck and Water Transportation in Alaska

Alaska's Employment Scene



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## Alaska's Transportation Industry

# Alaska Economic Trends

*Steve Cowper*, Governor, State of Alaska

*Jim Sampson*, Commissioner
Department of Labor

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May 1988
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**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

***Alaska Economic Trends* is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.**

**We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact John Boucher, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.**

# Alaska's Air Transportation Industry

**By Neal Fried**

Barnstorming pilots were the pioneers of Alaska's aviation industry. When James Martin shipped a biplane to Fairbanks in 1913 for the Fourth of July exhibitions, the foundation for Alaska's air transportation industry was placed. Others joined in the fray, traveling the state, setting new records or performing daring flying feats. Then Roy Jones arrived in Ketchikan in 1922 to establish the first commercial airline with his Curtis MF "Flying Boat." Two years later Ben Eielson, Alaska's most famous flyer, convinced the U.S. Post Office to deliver the first air mail. The industry was well on its way.

In 1924 Noel Wien came to Fairbanks to fly his plane commercially. This marked the beginning of Wien Airlines, Alaska's dominant air carrier for many years. Bob Reeve, who started out flying miners onto inaccessible glaciers near Valdez, extended commercial aviation to the Aleutian Islands. His operation developed into Reeve Aleutian Airways. Linous "Mac" McGee founded McGee Airways in 1932 which became Alaska Airlines after many mergers and acquisitions.

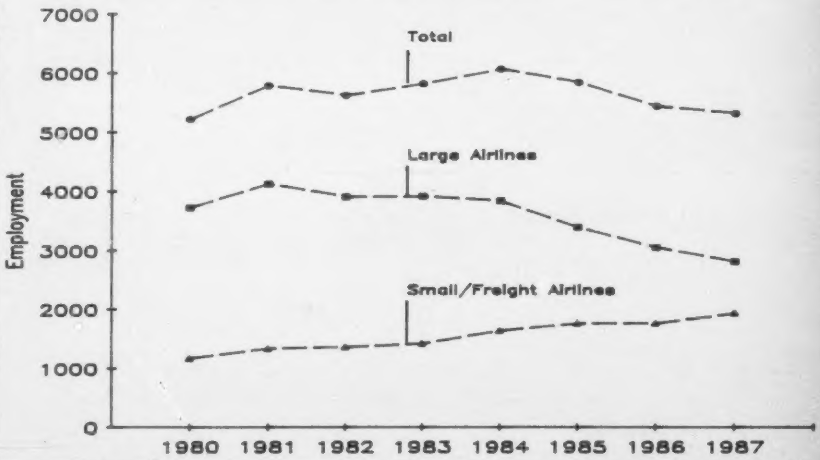
**Alaska's aviation industry is the state's largest transportation sector.**

Alaska was natural territory for the plane. Quickly it became hard to think of a time when the plane was not a "native species" to the state. There were virtually no road systems. The only other means of travel was by rail, dog sled, or water, most of which were useless during part of the year.

Many understood the plane's potential, and an industry quickly developed. Small airports and airstrips were established in many communities. When World War II got underway, Alaska's first big airfields were built for the defense of the territory and to ferry warplanes to the Soviet Union. After the war, larger civilian airports were built and the industry blossomed. Recently the Alaska Department of Transportation and Public Facilities (DOTPF) inventoried the state for airports and airstrips. They counted 988 of them—from its three international airports in Anchorage, Fairbanks and Juneau, to small emergency and recreational airstrips. There are so many airfields that the ownership of 149 of them is unknown.

Today Alaska's aviation industry is the state's largest transportation sector. Only the commercial side of this industry is addressed in this article, though the recreation side is an important component. The large military aviation sector is not addressed in this article either. The discussion will begin in 1980 because deregulation, though enacted in 1978, was not felt in Alaska until the early 1980s. Nineteen eighty also marked the end of the post-pipeline construction slump and the beginning of the oil revenue boom.

Figure 1
Alaska Air Transportation Employment 1980-1987



### Aviation—A Large Employer

Presently 5,300 people are employed in the air transportation industry. This number includes; private sector airport services, scheduled and nonscheduled passenger and cargo carriers, charters and flightseeing services. Possibly an equal number work in direct support of these operations. For example. 1.366 people work for the Federal Aviation Administration. Other indirect air transportation employment includes; repair facilities, aviation suppliers, airport personnel, state and municipal employees supporting and operating the airports, caterers, flight training schools, customs and others. Air transportation's percentage of total employment is five times higher in Alaska than in the rest of the nation. The industry transports 3.9 times the state's population each year. This compares to the entire U.S. passenger traffic, which equals 1.3 times the nation's population.

As economic activity began to pick up in 1980, air transportation employment began to grow (Figure 1). There is an irrefutable link between economic activity and the volume of business this industry enjoys, but not all of this growth resulted from increased economic activity. Deregulation played an equally important role.

### Deregulation of Alaska's Airline Industry

Before deregulation there were only five certified air carriers in Alaska. In other words, the Civil Aeronautics Board had only given permission to five carriers to provide scheduled air service to the entire state. The carriers were Alaska Airlines, Kodiak Western, Wien Airlines, Munz Airlines, and Reeve Aleutian. These major air carriers subcontracted with smaller noncertified airlines for some routes. The subcontracted routes provided the only means for noncertified carriers to grow, which put them at the mercy of the certified carriers.

The effects of deregulation on services and costs of air travel vary. Deregulation has meant most Alaskan communities are now being serviced more frequently and by more carriers. For example, before deregulation the village of Alakanuk received scheduled service from one airline 9-12 times per week. Today three airlines provide scheduled services 50 times per week. A study by the State's House Legislative Research Agency corroborates this trend. That agency found that between 1978-1984 there was an increase in departures in 127 communities, a decrease in 24 and no change in 28.

Deregulation meant many routes became self-supporting. Today only 52 communities are receiving subsidies from the U.S. Department of Transportation to provide essential air service. The cost of this subsidy was reduced to $4 million dollars. If adjusted to 1981 dollars, this amounts to about a third of what the subsidy was prior to deregulation.

Deregulation's impact on the cost of travel is less clear, though some general conclusions can be made. An informal study prepared by the Civil Aeronautics Board (CAB) comparing pre-deregulation air fares (1982) with early deregulation fares (1983), concluded fares increased moderately. The author surveyed the present cost of air fares (all intrastate) with pre-deregulation in 61 communities. In 67% of the cases air fares increased (after adjusting for inflation), they fell in 23% of the cases and remained relatively unchanged in the rest. In most cases the changes in fares were small.

In a different vein, a House Research report came to a surprising conclusion about Alaska's passenger air fare costs, stating that "on a cost-per-mile basis, air fares in Alaska are not substantially higher than those in the rest of the country, and are in fact less expensive in some cases." On the cargo side, prices appear to have stayed relatively level. However, for the carriers it has become a much more competitive business because of all of the new entries.

A certification process existed, but it took two to seven years, was quite costly and it was rarely successful. During the last 27 years of regulation only one new applicant was successful in obtaining certification. Even some large carriers such as Wien Airlines were frustrated when they wanted to expand their services to the lower 48 markets. Before deregulation, Wien tried unsuccessfully to enter the Seattle market on three separate occasions but failed each time.

Before 1982 the federal government subsidized the airline industry to the tune of $10 million a year in Alaska. The subsidy assured that the air carriers could provide service to all of their certificated points. In 1981, 187 out 220 communities receiving scheduled service were on subsidized routes.

### Deregulation Delivers Rapid Change

With deregulation, any airline business that could prove financial and managerial competence obtained certification. The process required six to ten months, and the results of easier certification were immediate.

Approximately 24 subcontractors were certified immediately and presently more than 40 certified airlines are flying scheduled routes in Alaska. During this same period, more than 24 air carriers have gone bankrupt or have been absorbed by others. Only two of the original five certified airlines still exist today—Alaska Airlines and Reeve.

Though many of the new airlines entered the field at the expense of the larger carriers, total employment grew. Employment for the large carriers peaked in 1981, but employment for the smaller carriers grew uninterrupted through 1987 (Figure 1). The recessionary economy was partially responsible for the losses sustained in 1986 and 1987 by the large carriers. However, deregulation was also responsible for much of this shift in employment.

### Mail—A Most Important Ingredient

The U.S. Postal Service is the bread and butter of Alaska's air transportation industry. For federal fiscal year 1987, $61.8 million was paid to Alaska's certified air mail carriers. According to the Postal Service and some industry officials these revenues represent about 50-60% of the air transportation revenues earned on routes in the state. This compares with 5% nationwide.

The "bush airlines" are more dependent on mail as a source of revenue, though it is important to nearly all carriers as a stable source of revenue. The U.S. mail must be carried by certified carriers. To qualify for this lucrative business many smaller airlines applied for certification. Sending freight via mail to Alaska's smaller communities often proves to be the most economical way for the sender and receiver, because of the heavy subsidies the Postal Service pays. For example, a 20 pound package sent priority mail from Anchorage to Ambler via Kotzebue costs the sender $10.09. The air transportation cost to the Postal Service is $22.01, not including the Postal Service's handling costs. For nonpriority mail, the subsidy is larger.

For communities not served by certified air carriers, the Postal Service runs a dozen air taxis on contract to provide mail service. Some of these communities include Red Mountain, Alexander Creek, and English Bay. Gold Creek was formerly served by the Alaska Railroad, but it became cheaper to send mail via airplane when the railroad ownership changed hands.

### Geographic Detail

Air transportation is important to all regions of the state. Proportionately, the Gulf Coast region has the smallest air transportation industry (Table 1). The industry supplies 1% of the region's wage and salary employment. Much of the Gulf Coast is accessible by road and water on a year-round basis. In Southeast Alaska the need for air transportation is greater because of the lack of road access, though excellent water access exists. For the Northern and Southwestern parts of the state, which often lack water or road access, more than 3% of their employment is in this industry. Anchorage has road and water access, but it has nearly the same share of total employment as most rural areas of the state. This is because Anchorage is both the state's air transportation hub and an international crossroads.

Though 43% of the state's population resides in Anchorage, 60% of the air industry's employment is in Anchorage. No other airport in the state experiences 20% of the passenger or cargo traffic that moves through the Anchorage International Airport. More than 40 scheduled and nonscheduled airlines operate out of the airport. In 1987 more than 2.7 million passengers boarded or deplaned and another 1.7 million were in transit.

**60% of the air industry's employment is in Anchorage.**

### Alaska's International Air Connection

Of those passengers in transit, 1.6 million were internationally bound. Cargo-wise, Anchorage International tops the nation for international transit cargo, beating out New York or Dallas. Alaska benefits from this activity because its location is almost equidistant between Europe and Asia (Figure 2). This makes Anchorage a convenient place for an international air pit stop. Almost 95% of all Asia-Europe bound air cargo traffic comes through Anchorage and 70% of Asia to the "Lower 48." According to Anthony Sampson's book *Empires of the Sky*, "Anchorage owes its prosperity to oil but even more to the planes

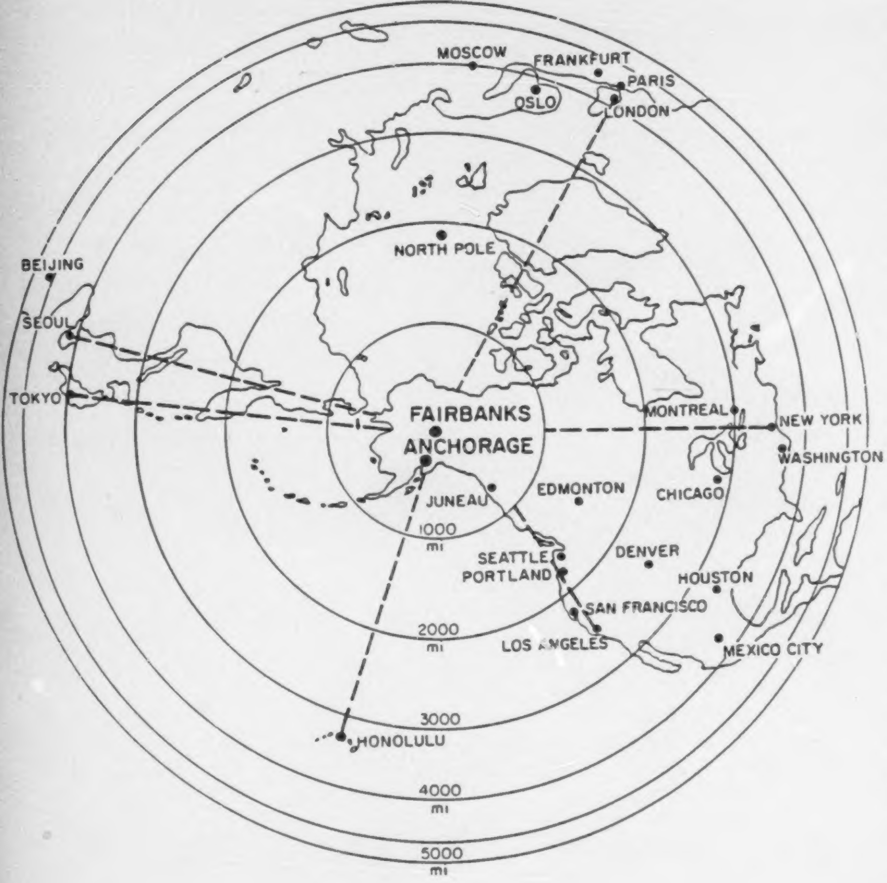
### Table 1
### Alaska's Air Transportation Industry Employment By Area[1]
### 1987

| | Air Transportation Employment | Distribution By Area | Total Employment | Air Transportation as Percent of Total Employment |
|---|---|---|---|---|
| Alaska Statewide | 5.288 | 100.0% | 210.252 | 2.5 |
| Anchorage-MatSu Region | 3.207 | 60.6 | 107.523 | 3.0 |
| Anchorage Borough | 3.155 | 59.7 | 101.046 | 3.1 |
| Gulf Coast Region | 173 | 3.3 | 19.687 | 0.9 |
| Interior Region | 488 | 9.2 | 29.368 | 1.7 |
| Fairbanks North Star Borough | 321 | 6.1 | 25.456 | 1.3 |
| Northern Region* | 408 | 7.7 | 12.835 | 3.2 |
| Southeast Region | 569 | 10.8 | 28.598 | 2.0 |
| Southwest Region* | 396 | 7.5 | 12.348 | 3.2 |

[1] Totals will not add due to inclusion of 9 month averages.

* Represents a 9 month average.

Figure 2
Alaska's Strategic Location for International Air Trade



**The future of Alaska's international air business is clouded by improved technology and changing diplomatic relations.**

which have connected it both to the world and to the rest of Alaska." This statement sheds some light on Anchorage's strategic location in international aviation.

The economic effects of the international side of the airport vary. At present very few international bound passengers ever leave the international terminal and visit the city of Anchorage. In 1987, of the more than 1 million Japanese who landed at the airport, only 7,000 of them spent any time outside of the airport. This is not to say they have no impact on the local economy, because in 1987 these passengers spent $81.6 million in the airport's duty free shops. In addition to the revenues, the concessionaire, Duty Free Shoppers, employs 260 people.

Additionally, most of the international passenger and cargo airlines have staffs residing in Anchorage. More than 250 people are employed by these airlines. Many of the flight crews shift in Anchorage, which generates a need for lodging. All of them purchase fuel and perform maintenance here. According to the MAPCO, Tesoro, and Chevron refineries, jet fuel is one of the single largest products they produce and market. Jet fuel is a premium fuel to the refineries, because all of their product can be sold relatively easily in Alaska.

The other international airports in the state are in Fairbanks and Juneau. During the past three years Fairbanks International experienced setbacks on the international side. In 1984 the last major international carrier, Japan Airlines, pulled its permanent presence out and consolidated its operations in Anchorage. On a more positive note, Emery Worldwide began to make weekly stops in Fairbanks in January 1988 and Cargo Lux, based out of Luxembourg, makes occasional stops. Air North, a Canadian carrier, makes scheduled flights between Fairbanks, Dawson and Whitehorse. It is this airline which gives Juneau an international status, flying scheduled flights between Juneau and Whitehorse.

The future of Alaska's international air business is clouded by improved technology and changing diplomatic relations. Many airlines are purchasing Boeing's new 747-400 series for their passenger traffic. This plane has the capability of flying from Europe to Asia nonstop. "Glasnost" may eventually be good for Alaska-Soviet trade, but more immediately it could mean more Europe-Asia bound airlines will fly over the Soviet Union instead of the Polar Route. Japan Airlines, British Airways and others have already diverted some of their flights. Concern over these developments spurred the state into establishing an aggressive airport marketing effort last year.

Not all of the news on the international front is bad. It may be inevitable that Anchorage will lose more passenger flights as the airlines acquire new jets. Nevertheless, many of the old passenger jets will be converted into cargo carriers. This means cargo traffic will probably increase. Air cargo traffic worldwide is growing dramatically because of growing trade and falling costs. Recognizing the upsurge in air cargo traffic, a recent issue of Forbes magazine refers to these cargo carriers as the "21st-century truckers."

The Soviet impact on Alaska's international air traffic business is more difficult to judge because of its political nature. Many people in the business believe that political uncertainty will prevent most air carriers from pulling out of Alaska completely. The Soviet Union is also one of the few nations which charges an air rent for the use of its air space and landing costs are considerably higher than in Anchorage. Developments in this amphitheater will have to be watched closely.

There are a number of promising possibilities for growth in the international air arena. Some ideas include:

- Attracting freight forwarders, such as the Flying Tigers, which use Anchorage as a hub to consolidate freight and then deliver to various national and international markets.
- More trade between international markets and Alaska.
- Tapping more of the transit international air passenger traffic for tourism.

Presently most of the internationally bound passenger airlines do not want to block seats for Anchorage because they would rather fill seats for the entire trip. The Anchorage International Airport Tourism Marketing Council and the state are now actively seeking ways to tap into the international tourist traffic.

Fallout from "Glasnost" may reintroduce direct flights between Alaska and the Soviet Union. This would mark a resumption of direct Soviet-Alaska flights which ended in the early 70s. MarkAir and Alaska Airlines have applied for air rights to Provideniya. Governor Cowper plans to be on the inaugural flight in late May or early June of this year.

**Fallout from "Glasnost" may reintroduce direct flights between Alaska and the Soviet Union.**

Figure 3
Anchorage International Airport Passenger and Freight Traffic, 1980-1987

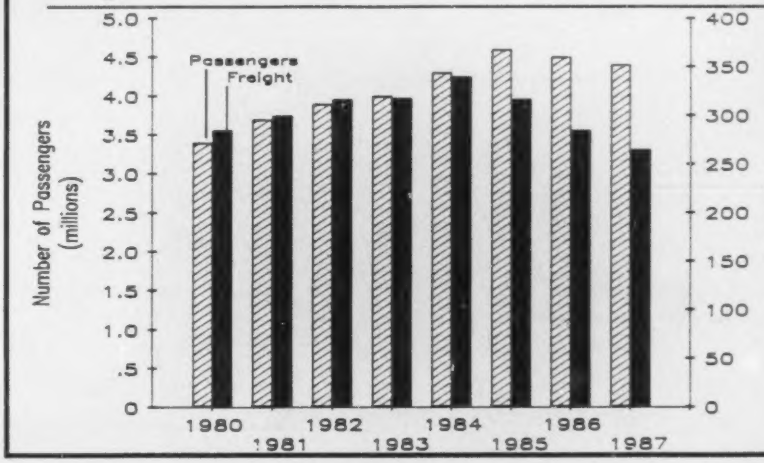
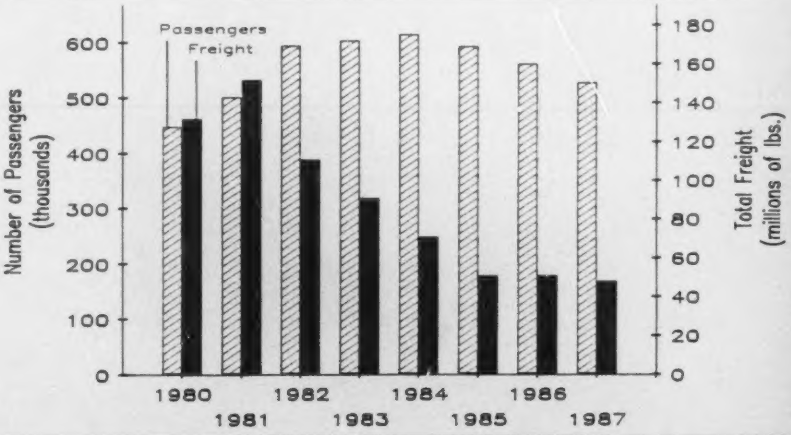


Figure 4
Fairbanks International Airport Passenger and Freight Traffic, 1980-1987



## Alaska Aviation Superlatives

Compared to the rest of the nation Alaska has about eight times as many pilots and 15 times as many aircraft per capita.

There are a total of 10,500 pilots: 2,763 commercial, 4,733 private, and 1,039 airline transporters.

Alaska has three times as many air passengers per capita as the rest of the United States.

As a percentage of total employment, the state's work force devotes three times the number of jobs to the air transportation industry as the rest of the nation.

Five out of Alaska's top fifty employers are in or support the air transportation industry. They include: Alaska Airlines, MarkAir, International In-Flight Catering, ERA Helicopters and Reeve Aleutian.

The air transportation industry paid out $145 million in payroll in 1986.

4.3 million passengers and 265 million pounds of freight in transit touched down at Anchorage International Airport in 1987.

Anchorage International Airport is the busiest international transit cargo airport in the nation.

About 95% of all Asia-Europe bound and 70% of Asia- "Lower 48" bound air cargo goes through Alaska.

Lake Hood is the largest and busiest seaplane base in the world.

Alaska has the largest number of seaplane bases in the nation, with 110 compared to Minnesota's 64.

There are 988 airports and airstrips in the state.

More books have been written about Alaska's flying heroes than any other profession in the state.

## Conclusion

During the past two years, air transportation activity fell victim to the statewide recession. Nineteen eighty-five was the last year this industry posted employment growth. Passenger and cargo traffic fell in the state's major airports in 1986-87 (Figures 3 & 4). However, not all of air transportation's business fell. The number of transit passengers grew in 1987 at Anchorage's international terminal. Load factors of these planes went up in 1987 due to the increased value of the yen and German mark. Small airline employment continued to grow uninterrupted. Employment losses were concentrated in the larger carriers, where shadows of deregulation may still linger.

In early 1988 employment in the industry began to level off, and if the economy rebounds as predicted, Alaska air transportation will follow suit. Nationally and worldwide the industry is booming. Shortages of qualified pilots and airports are plaguing the industry. This is a switch from five years ago when there was a surplus of pilots.

Some predict Alaska's airline industry will follow the national trend of consolidation. The nature of Alaska's market, however, will favor a more diverse industry because of the different demands put on the business here and the dispersed nature of the state. There is little doubt that air transportation will remain the largest sector of the state's transportation network. Alaska will remain the country's most airborne state.

# Rail Transportation in Alaska

**By Greg Huff**

Rail transportation is an important link in Alaska's development. Over twenty railroads operated in Alaska since the late 1800s. Railroads hauled hundreds of millions of tons of coal, gold, copper and other minerals from inland mines to tidewater ports. and transported millions of passengers. As the minerals played out or were no longer profitable, mines closed, community populations dwindled and slowly the railroads disappeared. Today two operational railroads remain in Alaska and only one, the Alaska Railroad (ARR), is fully operational. The other, White Pass and Yukon Railroad (WP & YR), is only providing limited summer passenger service.

These two railroads have had long histories in Alaska, far longer than any other Alaskan railroads. In long-term economic effects the ARR has, by far, had the most impact. This article explores the past of the these two remaining railroads and discusses their current and future outlook.

### White Pass and Yukon Railroad

The oldest of the two existing Alaskan railroads, The White Pass and Yukon Railroad, operated between 1900 and 1982. After a six year closure, the line will start limited operations again this summer. The new operations are limited to passenger service and will travel from Skagway to White Pass and return, a three hour round trip through 49 miles of spectacular scenery. The primary customers will be tour ship passengers. In the past the train traveled to Whitehorse and was a key transportation link to the rich Yukon mineral deposits.

Construction began on this narrow gauge railroad in 1898 and ended in 1900. The 110 miles of track (20 miles are in Alaska) provided a transportation link between the Yukon gold fields and tidewater. The railroad was profitable for some 20 years, but when gold production fell off in the 1920s and 1930s the railroad experienced many hard years.

**Over twenty railroads operated in Alaska since the late 1800s.**

The White Pass & Yukon revived during World War II. The railroad hauled military equipment from Skagway to the interior for construction of the Alcan Highway and Conal pipeline system. After the war the railroad returned to civilian management, in poor shape due to heavy use.

During the 1950s the line was upgraded and modernized. Revolutionary at the time, the railroad (in connection with its barge lines) introduced the first containerized freight service in Alaska.

The railroad remained operational until 1982 when mineral prices made the Cyprus-Anvil mine in the Yukon uneconomical to operate. Without ore haulage the railroad could not maintain a profitable operation. Before closing in 1982, the railroad carried about 600,000 tons of freight and 65,000 passengers annually. When the railroad closed it took about 160 year-round jobs and over 4.5 million in annual payroll from Skagway's economy.

The start-up this summer creates some 20 jobs for the summer months in Skagway, but without new developments the days of this railroad as a large employer are over.

## The Alaska Railroad

The concept of the Alaska Railroad (ARR) existed for at least two decades before its construction. In fact, two companies attempted to build a railroad on the route of the present day ARR. The first attempt was the Alaska Central Railroad. Construction started in 1904 with its primary goal of reaching the rich coal fields in the Matanuska Valley. Four years and only 51 miles of track later the company was bankrupt. The Alaska Northern Railroad acquired the defunct railroad in 1908 and built an additional 21 miles of track to Kern (near Girdwood). However, without money to continue construction or operate the railroad's days were numbered.

By 1914, legislation passed empowering the President to buy or construct a railroad not more than 1,000 miles in length. The railroad was to connect Alaska's interior navigable waterways and rich coal and mineral deposits with an ice-free harbor. Two route proposals existed—Alaska Northern's Seward to Fairbanks route and the Copper River and Northwestern Railroad's proposed route from Cordova to Fairbanks. The federal government decided for the Alaska Northern route and purchased the 72 miles of existing track.

The "Government Railroad" project started in April 1914 with an initial appropriation of $35 million. Completion of the project occurred nearly ten years later in July 1923. The cost was $60 million and the 481 miles of mainline track was renamed the Alaska Railroad. It was the first frontier railroad financed entirely by the federal government.

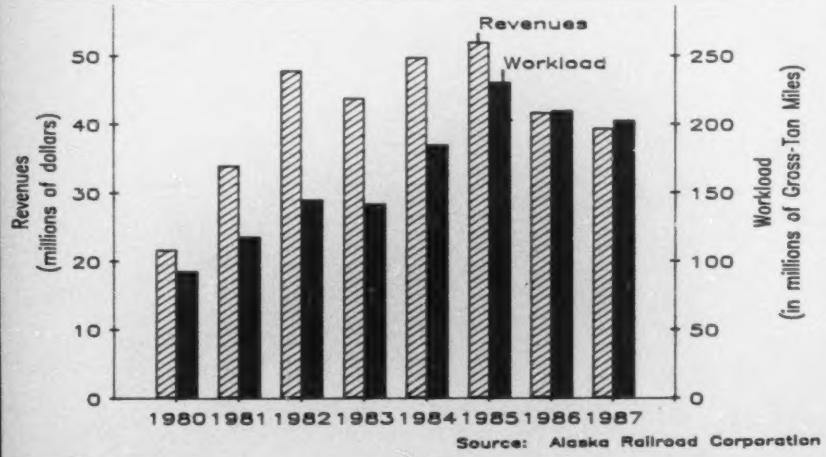
The railroad was built, but completion only connected the tracks from Seward to Fairbanks. Work remained before the ARR was on par with lower 48 railroad standards. However, that work was not to be done for some time. From 1924 to 1945 the railroad received no capital or operating appropriations from Congress and the railroad could not finance improvements due to the general lack of economic activity along the line. Deterioration of the already marginal railroad prompted some government officials to call for abandonment of the line.

World War II prevented the Alaska Railroad from being abandoned. The military provided ARR with a sharp increase in traffic, needed income and a link to Whittier. The 3.5 miles of tunnels to Whittier were completed in 1943, cutting the distance from Anchorage to ice-free tidewater by 51 miles. However, even with military assistance the railroad's equipment and property were in no better condition than before the war.

After the war the federal government considered abandoning the ARR, but decided to rebuild instead. By the end of the rehabilitation period in the early 1950s, at a cost of over $95 million, the railroad was complete. During the 1960s two events caused long-term changes in the character of the railroad; initiation of railcar barge service between Alaska and both Canada and the continental U.S. and opening of year-round container ship service to the Port of Anchorage. The most important event was the railcar barge service. This service gave additional options to Alaska shippers and made it possible to ship items directly to Alaska without reloading in Seattle and Alaska ports.

In the 1970s another event transformed the railroad into its present form. During the construction of the trans-Alaska pipeline between 1974 and 1977 the railroad carried its most profitable volumes of traffic since World War II. More important the rail-

Figure 1
Alaska Railroad Revenues and Workload, 1980-1987



Source: Alaska Railroad Corporation

road emerged from a period of heavy usage in better physical condition than it was at the beginning of the period. An infusion of federal dollars and equipment saw to that.

### The Alaska Railroad in the 1980s

During the early and mid 1980s the railroad experienced several changes, the most important being a transfer from federal to state ownership.

While discussion about a transfer of the ARR to state ownership had taken place since 1968, it was not until January 5, 1985 that the transfer happened. Alaska purchased the railroad from the federal government for $22.3 million. The Alaska legislature created a public corporation called the Alaska Railroad Corporation (ARRC) to operate the railroad and manage its properties. In addition to the purchase price, the state contributed $11 million for initial working capital and capital expenditures.

With three years of operation under its belt the ARRC has made a profit in two of the years. The railroad has increased retained earnings by over $2 million to $9.2 million (Table 1) and has received no subsidies from the state. This happened during a time of declining freight tonnage and revenues caused by a sagging Alaskan economy.

### Operations

The railroad has 481 miles of mainline track extending from Seward and Whittier through Anchorage to Fairbanks. Branch lines extend to Eielson Air Force Base, Anchorage and Fairbanks International Airports, Palmer, and Usibelli Coal Mine.

The principle freight of the railroad is bulk products such as coal, petroleum products, sand and gravel, pipe and freight classified interline and TOFC/COFC (Trailer-on-flatcar/Container-on-flatcar). The ARR also has an extensive passenger operation.

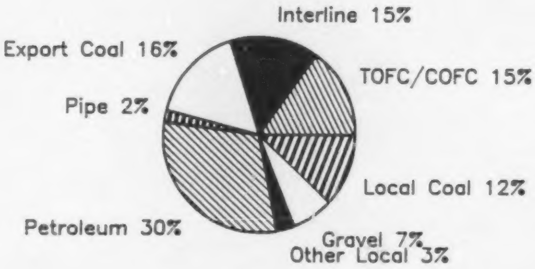
### Freight Market

Two types of freight travel the railroad: Local freight and freight with connections to trucking lines and water carriers. Total freight revenues and ton-miles (one ton of revenue generating freight travelling one mile) from 1980 to 1987 are illustrated in Figure 1.

The railroad also hauls drilling pipe from Whittier and Seward to Fairbanks, where it is transferred to trucks and delivered to the North Slope. The impact of slumping oil prices on drilling activity resulted in a dramatic drop in pipe freight from the peak of 74,000 tons in 1985.

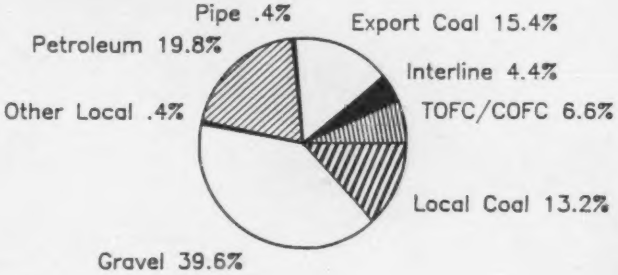
The export component consists almost exclusively of coal shipments to Korea. The Usibelli coal mine began exporting coal to Korea in 1985, when they struck a deal with Suneel Corporation. The coal is exported out

Figure 2
Overview of Freight Markets, 1987 Revenues



Source: Alaska Railroad Corporation

Figure 3
Overview of Freight Markets, 1987 Gross Tonnage



Source: Alaska Railroad Corporation

of the Seward coal port facilities. This $21 million coal facility was constructed in 1984 and can handle 4 million tons of coal per year. In 1985 the railroad hauled 57,000 tons and approximately 600,000 to 700,000 tons each year since. Usibelli's contract with Suneel runs until 1992 and calls for as much as 900,000 tons of coal to be exported each year.

Freight is also transferred from the ARR at Nenana to river barges. This helps connect the railroad to communities along the Tanana and Yukon rivers.

### Passenger Service

The passenger service provided by the ARR includes three primary routes: Anchorage-Denali-Fairbanks, Portage-Whittier and Anchorage-Seward. The shuttle service between Portage and Whittier is the ARR's most traveled passenger route followed by the Anchorage/Fairbanks and Anchorage/Seward routes.

Passenger trains to Seward began regular service in 1986, after a 30-year absence. Although the railroad was the original link between Anchorage and Seward it was discontinued when highway travel became more popular.

### Table 1
### Alaska Railroad Corporation
### Revenues by Commodity and Other Key Figures
### (in millions of dollars)

| | 1985 | 1986 | 1987 |
|---|---|---|---|
| Commodity | | | |
| Pipe | $3.3 | $2.2 | $.7 |
| Coal | 9.4 | 10.1 | 11.2 |
| Petroleum | 11.8 | 10.2 | 11.6 |
| Gravel | 7.8 | 4.1 | 2.7 |
| TOFC/COFC[1] | 7.0 | 7.6 | 5.8 |
| Interline | 10.5 | 6.7 | 6.1 |
| Misc. Local | 2.1 | .8 | 1.2 |
| Total | 52.0 | 41.7 | 39.4 |
| | | | |
| Passenger | 4.3 | 4.6 | 5.4 |
| Real Estate | 4.3 | 5.3 | 5.2 |
| All Other | 6.6 | 6.6 | 3.7 |
| Total | 15.3 | 16.5 | 14.3 |
| | | | |
| Total Revenue | 67.2 | 58.1 | 53.7 |
| | | | |
| Total Expenses | 60.1 | 59.1 | 50.7 |
| Net Profit (Loss) | 7.1 | (1.0) | 3.0 |
| Retained Earnings | 7.1 | 6.1 | 9.2 |

Source: Alaska Railroad Corporation
TOFC/COFC: Trailer-on-flatcar and Container-on-flatcar

The Whittier route is the only means of overland transportation to and from Whittier. The shuttle transports many Anchorage commercial fishermen and pleasure boaters who have their craft moored in Whittier. Passengers from the Alaska Marine Highway Systems route between Valdez and Whittier and tourists from tour ships docking at the Whittier Port also travel this route.

Local freight travels strictly between ARR served origins and destinations. It includes: coal moved from Healy to power plants at Clear Air Force Station, the University of Alaska in Fairbanks, Fort Wainwright and Eielson Air Force Base; gravel moved from Palmer to Anchorage transfer sites; and petroleum products between Fairbanks and Anchorage. The OWL (Oil Worker Limited) train transports jet and motor fuel from the petroleum refinery at North Pole to Anchorage daily. The OWL returns to Fairbanks with gasoline and other petroleum products. Revenues and tonnage generated from these sources are illustrated in Figure 2 and the change in revenues are contained in Table 1.

Revenues generated from gravel haulage were down 65% from 1985 levels, due to declining construction activity in Anchorage. In 1987, gravel contributed nearly 40% of the railroad's total tonnage (Figure 3), yet only 7% of its revenues.

Interline traffic is the interchange of goods between ARR and either Alaska Hydro-train or Canadian National Railway through the car-barge facility at Whittier. Currently, freight originating from the West Coast arrives from Seattle aboard Alaska Hydro-train and freight originating from the Midwest, East and Canada travels via the Canadian National Railway, from Prince Rupert to Whittier. In 1987, this freight component represented $6.1 million in revenues, down from $10.5 in 1985 because of a weak railbelt economy.

Currently, TOFC/COFC traffic originates from Seattle to Anchorage by Totem Ocean Trailer Express (TOTE) and Sea-Land Services (Sea/Land). However, in 1985 a new truck trailer "roll-on and roll-off" barge service was introduced between Seattle and Seward for transfer to the

ARR. This service increased the railroad's market share of containerized cargo, but the barge company went under after two years. In 1987, the TOFC/COFC comprised 15% of revenues and 6.6% of the tonnage. Because of a down economy revenues from this source fell 24% below 1986 levels (Table 1).

The biggest increase in ARR's passenger load (Figure 4) can be attributed to the growing number of port calls by cruise ships. In 1983 nine ships stopped at Whittier, by the next year the number had nearly doubled and by 1987, port calls totaled 57. Tour ships are also docking at Seward, 19 calls in 1987 and 30 expected in 1988. The impact on railroad passenger counts is not as large as port calls to Whittier because of the highway link between Seward and Anchorage.

The most popular destination on the Anchorage-Denali-Fairbanks route during the summer months is Denali Park. Increased tourism and an increasing number of tour companies booking ARR travel makes the future look bright for this run. In 1984, the ARR began hauling sky domed cars purchased by Alaska Tours and Westours on its Anchorage-Denali-Fairbanks run, which has proved to be very successful.

This type of agreement reflects the railroad's new emphasis on passenger marketing. The ARR devised a contracting arrangement similar to that used in freight marketing and the ARR works in cooperation with tour operators, tour wholesalers, and travel agents.

Although passenger service has grown, the services still do not make money. The past few years the summer runs have covered operating expenses. The purchase of specially rebuilt self-propelled diesel railcars in late 1985 helped reduce the cost of wintertime rail service and made the service to Seward viable.

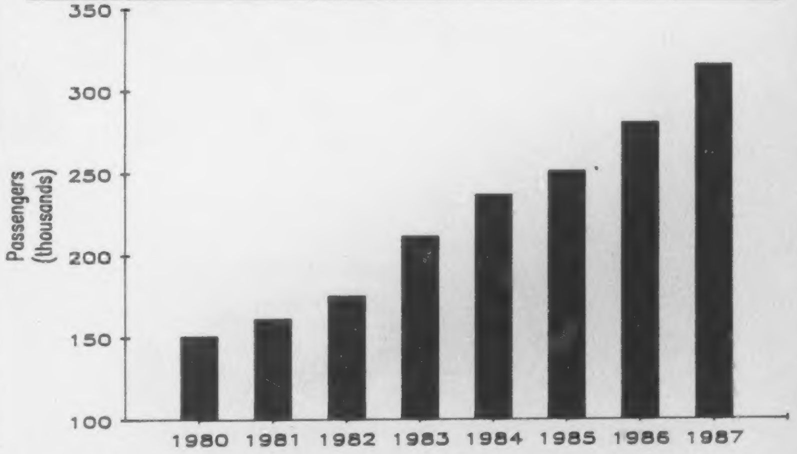
## Real Estate

The ARR controls approximately 38,000 acres of land from the port of Seward, Whittier and Anchorage inland to Fairbanks. Rentals received on leased real estate consist of about 10% of total revenues. These revenues provide a buffer for the lean times. Railroad officials state that real estate rental is one of the most profitable portions of railroad operations.

## Work Force

The work force patterns follow the same trends as freight revenues and ton-miles. When traffic load increases so do jobs available with the railroad. During the boom of the 1980s employment levels peaked at 712 in 1984 as freight volumes were beginning to peak. The economic downturn beginning in 1986 forced employment down to 599 by 1987. The hardest hit community, in terms

Figure 4
Alaska Railroad Total Passengers 1980-1987



Source: Alaska Railroad Corporation

Table 2
Alaska Railroad Employment
By Location
1980-1987

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Nenana | 6 | 6 | 6 | 4 | 4 | 3 | 4 | 4 |
| Healy | 41 | 22 | 19 | 19 | 19 | 17 | 16 | 13 |
| Fairbanks | 85 | 101 | 84 | 73 | 78 | 74 | 80 | 68 |
| Summit/Talkeenta area | 18 | 17 | 15 | 14 | 14 | 15 | 17 | 15 |
| Wasilla | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 |
| Eagle River | 9 | 9 | 8 | 10 | 11 | 12 | 13 | 10 |
| Anchorage | 469 | 495 | 552 | 559 | 566 | 551 | 534 | 434 |
| Moose Pass | 6 | 6 | 7 | 6 | 5 | 6 | 6 | 4 |
| Seward | 6 | 5 | 5 | 5 | 8 | 13 | 13 | 10 |
| Whittier | 6 | 5 | 6 | 5 | 4 | 6 | 6 | 4 |
| Total | 649 | 669 | 705 | 698 | 712 | 700 | 693 | 566 |

Source: Alaska Department of Labor, Research and Analysis.

of jobs lost, was Anchorage, where 100 railroad workers were laid off in 1987. Employment by geographic distribution is contained in Table 2.

## Market Competition

The ARR is virtually free from competition in the transportation of bulk natural resources (coal, gravel and petroleum) because they are usually unsuitable for road haulage. The Interline and TOFC/COFC market is a different matter.

Cooperatively, the railroad receives piggyback traffic bound for Fairbanks from Sea/Land and TOTE, but it also indirectly competes with these firms with rail deliveries to Anchorage via railbarge from the Port of Whittier. The ARR is a major player in the competition between containerships and railbarges for sea delivery from the lower-48 and Canada. Overall, the ARR estimates it has about one-third of this market.

The ARR also has an impact on which port handles deliveries to the railbelt. For example, drilling pipe delivered by the railroad from Seward or Whittier to Fairbanks bypasses the ports of Anchorage and Valdez. Lumber and building products delivered by the railroad to Anchorage via the Port of Whittier bypasses the Port of Anchorage even though Anchorage is the cargo's destination.

The shippers' choice of carriers is usually based on price and service characteristics such as the value of cargo and delivery requirements. Deregulation of the railroad by the passage of the Staggers Rail Act of 1980 made it easy for the ARR to react to market forces. This strengthened ARR's competitive position in the interline and TOFC/COFC markets.

## Future

What does the future hold for the Alaska Railroad? Railroad officials are confident the railroad can continue to be profitable, even during times of falling revenues and tonnage. After two lean years indications are that revenues will increase in 1988 due to increased interline and TOFC/COFC freight volume.

What about expansion of the railroad to new areas? Construction costs at $2 to $3 million per mile make expansion too risky at this juncture. Furthermore, the ARR does not have the financial muscle to undertake a major expansion. There would need to be a coordinated effort by state government and private enterprise for expansion to occur.

The proposed move of the main ARR yard from Ship Creek to Eagle River is currently on the railroad's long term plan. As with an expansion, the ARR does not have enough financial strength to accomplish the move by itself.

A key element of the ARR's plans for the future call for an aggressive marketing program. The effort will establish the identity of the Alaska Railroad throughout the Northwest and Alaska shipping communities. One of the main goals of the ARR will be to provide competitive pricing.

The primary factor in ARR's long term success is the haulage of natural resources, raw and refined. This will continue to be the railroad's "bread and butter" for the foreseeable future.

## Conclusion

The Alaska Railroad has shaped Alaska's past and will have an opportunity to influence the state's future. By most measurements the ARR has been a success. It has connected Interior Alaska with open Pacific ports and assisted in developing the urban communities in the "railbelt" of Alaska. In 1920, about 10% of Alaska's population lived in the railbelt; today it is home to 70% of Alaska's residents.

After 71 years of federal ownership the fate of the railroad is now in the state's hands. The state struck a good deal when it purchased the railroad. With its debt wiped clean and an infusion of state start-up capital the ARR had a new beginning. After three years of state ownership the railroad has remained profitable and the track has been upgraded to its best condition ever. This makes the Alaska Railroad a transportation asset to the economy of Alaska.

# Truck and Water Transportation in Alaska

**By Brian N. Rae**

One of the greatest impediments to Alaska's growth has been the inability to easily and inexpensively transport goods and products. Transportation costs decreased dramatically and promoted both economic and population growth in the state with the opening of the Alcan Highway in 1943. Further road construction and innovations in freight handling techniques have continued to lower costs and increase growth. However, much of Alaska still must rely on either water or costly air for all long distance transportation. For lowest cost transportation, truck and water are the only available options for most of the state.

**For lowest cost transportation, truck and water are the only available options for most of the state.**

### Transportation Corridors

Over 15,000 miles of highway serve various parts of the state. The Alaska Marine Highway System (AMHS) accounts for 2,300 of these miles, or about 15% of the total. The AMHS links Southeast Alaska with both Prince Rupert, B.C. and Seattle, a total of 700 additional miles. For many communities in Southeast, Kodiak and the Aleutians the AMHS offers the only link to mainland road systems. It also plays a vital role in both passenger and freight transportation.

Exact figures are not available for navigable waters in the state—the term itself being open to debate—but Alaska's coastline is 33,900 miles long. Commercial freight lines serve communities as far north as Barrow and pipeline facilities on the North Slope. The Yukon, Tanana, and Kuskokwim rivers and their tributaries are important shipping routes for the communities along their banks. The Department of Natural Resources estimates navigable **inland** waters at 550,000 miles. (This figure includes all rivers over 70 feet wide, usable by raft, boat, or float plane.) Since the state does not regulate waterway usage, these routes are open to anyone. While not all are now used for transportation, the majority of these are used for activities ranging from barge transportation to recreation.

The road system in the state is less extensive. The state oversees about 5,500 miles of land highways, while municipalities and boroughs oversee more than 2,500 miles. An additional 2,900 miles of road, usually owned by the federal government or private entities, are available for public use. The federal government is a major provider of moneys for highway construction, supplying funds for both the state and local governments. After construction, the federal government transfers responsibility for maintenance.

### Historical Trends

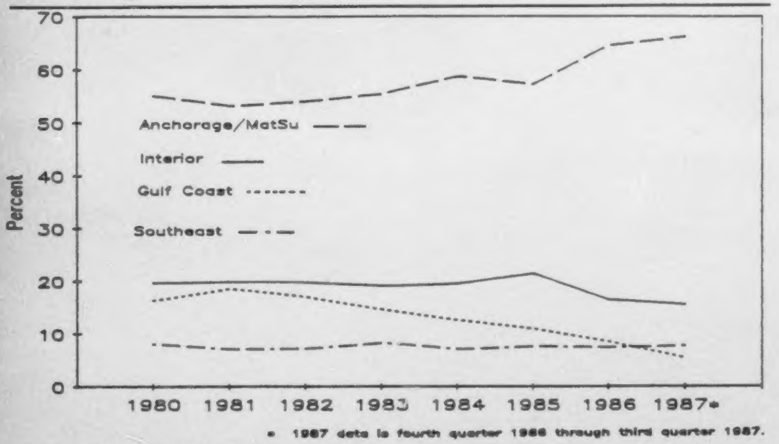
In 1960, provisions regulating intrastate trucking were imposed in the Alaska Motor Freight Carrier Act. Various parts of the act addressed safety measures, competition, and rates. In 1970, major revisions to the act strengthened the state's regulatory and enforcement authorities. The Alaska Transportation Commission took over the responsibility for enforcing the act from the Alaska Public Services Commission.

Compared to most regulatory agencies, the commission took a less restrictive course of action. Market forces played an important role in setting tariffs and allowing new entries into the industry. The commission was abolished in March 1985, after legislation was enacted requiring minimum insurance coverage and semi-annual safety inspections for trucks. The Interstate Commerce Commission regulated interstate trucking, which falls outside the jurisdiction of individual states. In 1980, this industry was deregulated by the federal government.

The federal government also regulates interstate and international water transportation through several different agencies. As in other transportation sectors, the 1980s have brought about federal deregulation. Unlike trucking, the state has never regulated the water transportation industry.

The trucking and water transportation industries had an average combined employment of about 3,600[1] between 1980 and 1987. Trucking, warehousing and storage (trucking) had the majority of these jobs, averaging 2,300 during that time frame. Water transportation employment averaged 1,300. Compared to many other Alaskan industries, both have been relatively stable in the post-pipeline years.

Figure 1
Trucking Transportation
Percentage Total Employment by Region



* 1987 data is fourth quarter 1986 through third quarter 1987.

Both industries, trucking in particular, seem more insulated from market shocks than do most other industries. Most companies contacted have diversified their operations over the years, both by expanding into other industries and broadening their clientele. Although some firms are still dependent on one product or client, this is no longer the norm in these industries. In water transportation, freight carriers operate in much the same way as railroads. Interchange agreements allow a company to transport another company's container, so a firm will often transport a competitor's containers.

Trucking employment was at a low point in 1980, with only 2,000 jobs statewide. In 1981-82, employment increased to higher than normal levels, with gains experienced throughout the state. Since 1983, statewide annual average employment has remained close to the 2,300 mark. Not all regions of the state have experienced this stability.

Water transportation employment showed extremely stable employment levels from 1980 through 1985 at the statewide level. Annual average employment ranged from 1,325 to 1,410 during this six year period. Like trucking, this stability was not clear in all regions. In 1986, employment fell by almost 200, and fell an additional 150 in 1987.

## Regional Trends

One clear relationship can be drawn between regional employment levels for the water transportation and trucking industries—one industry usually dominates. Statewide, between 1980 and 1987, annual average trucking employment has represented 59% to 69% of combined water and truck transportation employment.

The Anchorage/MatSu region trend has held fairly steady with 75% to 85% of employment in the trucking sector. Employment in water transportation has been very stable, with some small gains between 1982 and 1984. Since that time, employment fell slightly but gained somewhat in 1987 (Figure 1). Trucking has shown less stability over the period, but has grown since 1980 by over 400 in employment. Over the period,

[1] Does not include self-employed or unpaid family members, a significant portion of the trucking industry because of independent operators.

## Table 1
## Annual Average Employment by Regions

| Area | 1980 | 1981 | 1982 | 1983 | Year<br>1984 | 1985 | 1986 | 1987* |
|---|---|---|---|---|---|---|---|---|
| Northern | | | | | | | | |
| Trucking | 1 | 3 | 6 | 12 | 9 | 19 | 7 | 31 |
| Water | 203 | 271 | 273 | 232 | 204 | 200 | 155 | 88 |
| Total | 204 | 274 | 279 | 244 | 213 | 219 | 162 | 119 |
| Interior | | | | | | | | |
| Trucking | 401 | 478 | 489 | 429 | 458 | 483 | 372 | 360 |
| Water | 44 | 53 | 74 | 73 | 65 | 62 | 48 | 51 |
| Total | 445 | 531 | 563 | 502 | 523 | 545 | 420 | 411 |
| Anchorage | | | | | | | | |
| Trucking | 1120 | 1274 | 1335 | 1247 | 1372 | 1286 | 1467 | 1544 |
| Water | 303 | 310 | 303 | 342 | 360 | 330 | 274 | 266 |
| Total | 1423 | 1584 | 1638 | 1589 | 1732 | 1616 | 1741 | 1810 |
| Southwest | | | | | | | | |
| Trucking | 15 | 23 | 36 | 42 | 37 | 46 | 60 | 73 |
| Water | 76 | 94 | 71 | 75 | 79 | 71 | 88 | 87 |
| Total | 91 | 117 | 107 | 117 | 116 | 117 | 148 | 160 |
| Gulf Coast | | | | | | | | |
| Trucking | 333 | 447 | 422 | 329 | 293 | 246 | 193 | 127 |
| Water | 155 | 139 | 155 | 139 | 191 | 248 | 149 | 98 |
| Total | 488 | 586 | 577 | 468 | 484 | 494 | 342 | 225 |
| Southeast | | | | | | | | |
| Trucking | 165 | 170 | 180 | 188 | 165 | 172 | 168 | 181 |
| Water | 608 | 542 | 447 | 486 | 452 | 470 | 464 | 431 |
| Total | 773 | 712 | 627 | 674 | 617 | 642 | 632 | 612 |
| STATEWIDE | | | | | | | | |
| Trucking | 2035 | 2395 | 2469 | 2248 | 2335 | 2252 | 2273 | 2330 |
| Water | 1392 | 1410 | 1323 | 1347 | 1351 | 1381 | 1192 | 1043 |
| TOTAL | 3427 | 3805 | 3792 | 3595 | 3686 | 3633 | 3465 | 3373 |

*1987 data represents a four quarter average from 4th quarter 1986 to 3rd quarter 1987.

Source: Alaska Department of Labor, ES-202 File.

Anchorage/MatSu has increased its share of employment in both sectors.

Water transportation has been the predominant sector in the Southeast region. Southeast water employment was quite high in 1980, but dropped nearly 25% over the next two years. This was brought about by the dollars appreciation against the Japanese yen. Demand for Alaska timber dropped sharply due to a depressed Japanese housing market. Since 1982, the water transportation sector has been quite stable with annual average employment around 450. Even with the 1980-82 drop, Southeast has dropped only slightly in its share of statewide water transportation employment. For trucking employment, Southeast has shown only slight growth during the period, but has remained quite stable with employment around 175.

The Interior region relies heavily on trucking, with employment levels stable between 400 and 500 between 1980 and 1985. Since 1986, employment has shown some weakness. Water transportation in the Interior mainly serves remote communities on major rivers, delivering bulk and nonperishable items.

Gulf Coast trucking employment showed gains similar to statewide movements in 1981 and 1982, but did not stabilize and continued to decline through 1987. The Gulf Coast lost almost two-thirds of its share of statewide trucking employment between 1980 and 1987. Expectations surrounding events in Seward can be blamed for part of this loss. Water transportation was quite stable until 1984, when employment increased rapidly in response to ventures using the Seward terminal by VECO Alaska, SeaWay Express, and Alaska Marine Towing (Table 1). Employment hit its peak in 1985 and then declined rapidly as the planned expansion did not materialize. Increased shipments by the Alaska Railroad through Whittier hurt the Seward economy. SeaWay Express, AK Marine Towing and VECO Alaska filed Chapter 11 bankruptcy proceedings. Their subsequent retraction from Seward sent transportation employment to its lowest level in the eight year period.

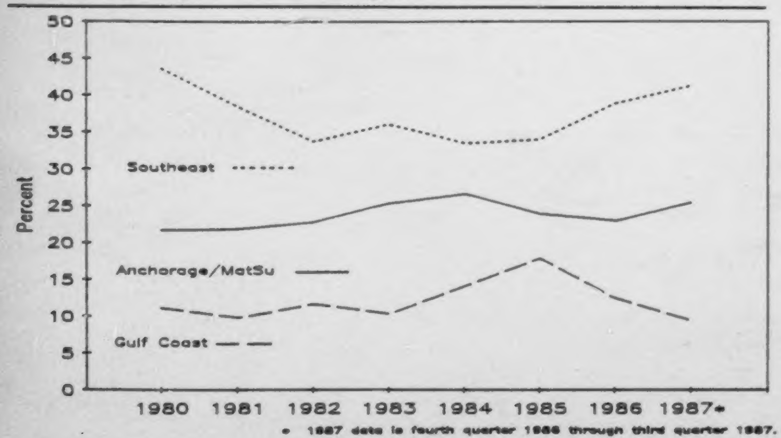
### Occupational Structure

Water transportation leads trucking in the percentage of laborers employed. Over 80% of employees are in the crafts, operators, and laborers designation. Stevedores alone make up over 25% of the employment, and longshore equipment operators make up an additional 16%.

Slightly over 70% of employment in the trucking, warehousing and storage industry is in the crafts, operators and laborers sector. Of these, almost one-half are heavy truck or tractor trailer drivers and 20% are light truck and delivery drivers. This industry employs a much higher percentage of office staff than does the water transportation industry. On a percentage basis, it has almost twice as many clerical workers and three times as many officers and managers.

Trucking also employs a higher percentage of Alaska residents. In 1986, nonresidents made up 14.9% of all employees, as reported in *Nonresidents Working in Alaska 1986*. These workers collected 9.4% of total earnings. The water transportation industry, with extensive operations in ports outside Alaska, employed 19.7% nonresidents who collected 18.3% of the industry's earnings.

Figure 2
Water Transportation Employment
Percentage by Selected Regions



* 1987 data is fourth quarter 1986 through third quarter 1987.

### Water and Truck Transportation Trends

Competition has helped drive down the cost of transporting freight in Alaska. Following the abolition of the Alaska Motor Freight Carrier Act, many new firms entered the trucking industry. According to a House Research study, in 1985 over 500 new long-distance trucking firms applied for licenses. (This does not include local trucking, outside the scope of the House Research study.) During the same time trucking rates fell, which could not happen under the regulated rate structure of the Alaska Transportation Commission.

Water transportation still handles the greatest tonnage of freight in Alaska. Water transportation was critical to Alaska's early settlers, who located their communities to accommodate this need. Even after truck transportation was possible, the vast area of the state made this option too expensive to pursue. Air transportation filled the need for rapid transportation of perishable goods, and water transportation supplied the durable goods. Because of Alaska's unique evolution in transportation, it will be many years before other transportation sectors can compete with water transportation's inherent advantages in rural Alaska.

One controversial regulation, insulating the maritime industry from foreign competition, is the Jones Act. (The act is more correctly referred to as the Merchant Marine Act of 1920.) Under this act, all transportation between American ports must be done with ships built and registered in the United States. The Alaska Statehood Commission, in their final report released in January 1983, states that:

> "(T)he act adds $41 million a year to the cost of goods coming into the state, and thereby helps raise our cost of living. But the worst effects of the Jones

> Act are those on the state's revenues from oil and on the future of state mineral development. Each year . . . the state treasury is denied from **$63 to $176 million in oil revenues**." (Original emphasized.)

Not everyone agrees with this rationale, including some who testified before the Commission. It was argued that legislation similar to the Jones Act exists in most maritime countries, and in other industries in the United States. The act was not seen as protecting the water transportation industry. Proponents said the act protects the country's national security and political interests, at very little added cost to consumers. It was even argued that any added costs were evenly distributed when one looked at all government programs. For example, the costs for the Coast Guard, only available to people using waters under the Coast Guard's jurisdiction, were seen as inequitable but in the public's best interest. Likewise, setting a 200 mile fishing limit protects United States fishers at the expense of consumers.

The Rural Research Agency of the Alaska Senate reported in 1986 on freight transportation in rural Alaska. The report found freight services and tariffs quite unstable. Many remote communities are forced to rely on one type of service, with little recourse to rate fluctuations. One of the few moderating forces on tariffs is the presence of federally subsidized freight systems. These include the U.S. Postal Service and the BIA Cool Barge. The instability extends beyond the state level, however, as national and world freight rates show strong cyclical tendencies.

The report expected rural freight rates to increase because the industry was then at the low point of a cycle. This would be worsened by other factors. Decreased tonnage moving into rural Alaska, increased insurance rates and decreased competition would cause rates to rise. These expectations have proven to be correct. Since January 1987 three rate hikes have taken place in the water transportation sector. Shipping costs have increased by 24.2%.

The agency found that freight charges contributed only a small part to the cost of living differences for rural Alaska. In general, freight charges add 10% to 15% to the costs of goods in rural Alaska, while the cost of living differentials range from 26% to 45% more than that of Anchorage.

For example, fuel accounts for 80% by weight of freight shipped into rural Alaska. Most of this is shipped by water or truck. The House Research Agency looked at the costs of fuel oil in two villages in western Alaska in 1983. It found that the retail price was $1.23 to $1.31 higher per gallon than the wholesale price at the California refinery. Transportation costs and dealer markup account for this increase. Dealer markup, which includes inventory, labor and administrative costs and profits, accounted for $0.47 to $0.68 of this increase. Transportation costs can be compared over three segments of the trip. The California to Dutch Harbor segment cost the least, while transportation from distribution centers in Bethel or Kotzebue to the villages added $0.31 to $0.325 to the fuel's cost.

### Outlook

Water transportation employment, after two years of losses, should stabilize near 1987 levels. Although this sector has a captive market in much of rural Alaska, competition with other sectors in transportation could be a problem. There might be regional employment swings as firms consolidate operations. More movements could occur by firms expanding into different sectors in the transportation industry.

Much the same outlook is projected for trucking. Although this sector did not show employment declines over the past two years, it did not grow strongly after the lifting of regulations. The trucking sector could face serious setbacks if the air freight industry is able to lower prices and more commodities are moved by the Alaska Railroad.

# Alaska's Employment Scene

**By John Boucher**

Alaska's wage and salary employment increased in March by 2,100 jobs. However, more interesting was the first year-to-year employment gains registered since February 1986 (Table 1). The over-the-year gain was a small one, only 200 jobs, but it was an encouraging sign that the recession has run its course.

Additional employment in the manufacturing and mining industries is the biggest reason for the over-the-year job gain. The manufacturing industry, particularly seafood processing and logging employment, account for 1,900 more jobs in Alaska's economy than they did last March. Seafood processing employment growth translates into a phenomenal 35% job gain over last March. Wood products employment growth is less vigorous but still a noteworthy 15% gain. Without the strength of these two industries, Alaska's economy would still be posting employment losses.

On the unemployment side, Alaska's unemployment rate decreased three-tenths of a percentage point in March to 10.8% (Table 5). The drop signaled the annual turnaround in the unemployment rate for the state. If typical seasonal patterns hold, the unemployment rate will improve from now through the early fall.

### Table 1
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Alaska

| | p/ 3/88 | r/ 2/88 | 3/87 | Changes From: 2/88 | 3/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 201,000 | 199,100 | 200,800 | 1,900 | 200 |
| Mining | 8,600 | 8,500 | 7,900 | 100 | 700 |
| Construction | 7,700 | 7,400 | 8,800 | 300 | -1,100 |
| Manufacturing | 12,100 | 11,500 | 10,200 | 600 | 1,900 |
| Seafood Processing | 6,100 | 5,900 | 4,500 | 200 | 1,600 |
| Lumber & Paper Prod. | 3,000 | 2,600 | 2,500 | 400 | 500 |
| All Other Manufacturing | 3,000 | 3,000 | 3,200 | 0 | -200 |
| Transportation | 16,700 | 16,600 | 16,800 | 100 | -100 |
| Trucking & Warehousing | 2,400 | 2,400 | 2,200 | 0 | 200 |
| Water Transportation | 1,000 | ,900 | 1,000 | 100 | 0 |
| Air Transportation | 5,000 | 5,000 | 4,900 | 0 | 100 |
| All Other Transportation | 8,300 | 8,300 | 8,700 | 0 | -400 |
| Trade | 38,600 | 38,500 | 38,400 | 100 | 200 |
| Wholesale | 7,100 | 7,100 | 7,200 | 0 | -100 |
| Retail | 31,500 | 31,400 | 31,200 | 100 | 300 |
| Gen.Mer.& Apparel | 4,500 | 4,600 | 4,400 | -100 | 100 |
| Food Stores | 5,700 | 5,700 | 5,600 | 0 | 100 |
| Eating & Drinking Pl. | 11,100 | 10,900 | 11,400 | 200 | -300 |
| All Other Retail | 10,200 | 10,200 | 9,800 | 0 | 400 |
| Finance-Ins. & R.E. | 10,600 | 10,600 | 11,300 | 0 | -700 |
| Services | 39,800 | 39,400 | 40,800 | 400 | -1,000 |
| Government | 66,900 | 66,600 | 66,600 | 300 | 300 |
| Federal | 17,600 | 17,700 | 17,100 | -100 | 500 |
| State | 19,500 | 19,200 | 19,300 | 300 | 200 |
| Local | 29,800 | 29,700 | 30,200 | 100 | -400 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1987.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

## Unemployment Down Sharply from '87

The statewide unemployment rate has dramatically improved since one year ago. Last March the unemployment rate in Alaska was at an all time high) 13.4%. At that time 32,600 Alaskans were unemployed compared to 26,000 this March.

Alaska Department of Labor unemployment insurance claims data, a component in the unemployment estimate, supports the size of the drop in the unemployment rate over last year. Last March, an average of 1,600 new unemployment claims were processed each week. This year that number dropped below 1,200 per week. While unemployment claims are not the only measure used to calculate unemployment, claims do form a solid basis for comparison to last March.

Regionally, unemployment rates generally followed the statewide trend and took a turn for the better. Exceptions were the Northern and Southwest regions of Alaska. There were two notable increases in local area unemployment rates in Northern and Southwest Alaska—the Nome and Bethel census areas.

Further investigation reveals that an increasing unemployment rate for Nome and Bethel is not an uncommon occurrence in March. In fact the increasing unemployment rates may be an indicator of future economic activity in these areas. Summer seasonal work is a factor in both of these economies and the seasonal labor force migrates in and out of the census areas. The increasing unemployment rate in these two areas is a result of unemployed workers moving to Nome and Bethel before starting work. These unemployed persons may spend the majority of their period of unemployment in Fairbanks, Anchorage or some other location. However, they file for their last one or two unemployment checks in Nome or Bethel. The seasonal nature of employment in these census areas leads to increasing unemployment rates immediately before the start up of seasonal activity. In these two cases, an increase in the unemployment rate is an unlikely sign of a return of economic activity to the local area.

### Industry Employment

The employment surge in manufacturing was typical for that industry for March. Logging camps begin to prepare for summer and an employment gain of 35% in logging is expected. The processing portion of the industry, sawmills and the two pulp mills, experienced almost no employment change from February to March.

The other component of the manufacturing industry, seafood processing employment, experienced a less than normal increase in March. In an average year the seafood processing sector increases six to nine percent from February to March. This year the February to March gain was only 3.8%. The small employment gain was due to the unusually high employment levels in seafood processing during the December to February period. Normally many seafood processors would be gearing up for summer, but activity in the bottomfish industry in Kodiak and Western Alaska has kept some processors busier than normal. The result is that summer staffing patterns in some processors have changed. They do not need to hire as much additional help because they had crews on for the bottomfish season.

One prominent factor in the return to health of the U.S. manufacturing industry has been the U.S. dollar's fall in relation to most world currencies. Particularly affecting Alaska has been the dollar's slide against the Japanese yen. Japan is the largest market for both Alaska forest products and Alaska seafood. Since 1985, the dollar has fallen 40% against the yen (Figure 1).

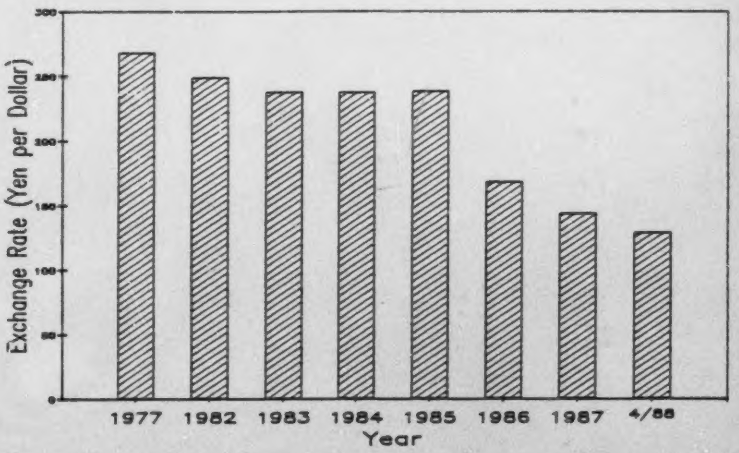
In a recent issue of Business Week, currency market analysts predicted that the three year slide of dollar may not have run its course. They also noted that recent attempts to increase the value of the dollar against the yen have been failures. One foreign exchange manager predicted the dollar would drop another 5% in the next two months. This is a good sign for continued growth in Alaska's manufacturing industry during 1988. Alaska's forest and seafood products should become even more competitive in the Japanese market and with the Japanese economy posting a 7% annual gain in the fourth quarter of 1987 there seems to be no impediment to continued growth.

**Particularly affecting Alaska has been the dollar's slide against the Japanese yen.**

### Tourism Outlook: New Destinations Develop While Old Ones Prosper

Alaska's tourism industry continues on the growth path with new destinations being added every season. Prominent newcomers to the Alaskan tourist market this year include: the reopening of the White Pass Yukon

Figure 1
Yen/Dollar Exchange Rate 1977 and 1982 to Present



## Table 2
# Nonagricultural Wage and Salary Employment By Place of Work

## Anchorage

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 3/88 | r/ 2/88 | 3/87 | 2/88 | 3/87 |
| Nonag. Wage & Salary | 96.200 | 95.850 | 99.100 | 350 | -2.900 |
| Mining | 3.400 | 3.350 | 3.250 | 50 | 150 |
| Construction | 3.900 | 3.850 | 4.700 | 50 | -800 |
| Manufacturing | 1.900 | 1.800 | 2.100 | 100 | -200 |
| Transportation | 8.800 | 8.700 | 9.000 | 100 | -200 |
| Trucking & Warehousing | 1.350 | 1.300 | 1.500 | 50 | -150 |
| Water Transportation | 300 | 250 | 250 | 50 | 50 |
| Air Transportation | 3.000 | 3.000 | 3.000 | 0 | 0 |
| All Other Transportation | 4.150 | 4.150 | 4.250 | 0 | -100 |
| Trade | 22.400 | 22.400 | 22.450 | 0 | -50 |
| Wholesale | 5.200 | 5.100 | 5.500 | 100 | -300 |
| Retail | 17.200 | 17.300 | 16.950 | -100 | 250 |
| Gen.Merch. & Apparel | 2.200 | 2.300 | 2.150 | -100 | 50 |
| Food Stores | 2.900 | 2.950 | 2.850 | -50 | 50 |
| Eating & Drinking Pl. | 6.600 | 6.550 | 6.700 | 50 | -100 |
| All Other Retail | 5.500 | 5.500 | 5.250 | 0 | 250 |
| Finance-Ins. & R.E. | 7.050 | 7.050 | 7.600 | 0 | -550 |
| Services | 22.700 | 22.700 | 23.600 | 0 | -900 |
| Government | 26.050 | 26.000 | 26.400 | 50 | -350 |
| Federal | 10.350 | 10.500 | 10.100 | -150 | 250 |
| State | 7.000 | 6.850 | 6.950 | 150 | 50 |
| Local | 8.700 | 8.650 | 9.350 | 50 | -650 |

## Anchorage-MatSu

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 3/88 | r/ 2/88 | 3/87 | 2/88 | 3/87 |
| Nonag. Wage & Salary | 102.250 | 101.900 | 105.600 | 350 | -3.350 |
| Mining | 3.400 | 3.350 | 3.250 | 50 | 150 |
| Construction | 4.100 | 4.000 | 4.900 | 100 | -800 |
| Manufacturing | 2.000 | 1.900 | 2.200 | 100 | -200 |
| Transportation | 9.400 | 9.350 | 9.650 | 50 | -250 |
| Trade | 23.750 | 23.800 | 24.050 | -50 | -300 |
| Finance-Ins. & R.E. | 7.500 | 7.450 | 8.100 | 50 | -600 |
| Services | 23.850 | 23.750 | 24.700 | 100 | -850 |
| Government | 28.250 | 28.300 | 28.750 | -50 | -500 |

## Gulf Coast

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 3/88 | r/ 2/88 | 3/87 | 2/88 | 3/87 |
| Nonag. Wage & Salary | 18.300 | 17.950 | 17.600 | 350 | 700 |
| Mining | 750 | 750 | 650 | 0 | 100 |
| Construction | 700 | 650 | 850 | 50 | -150 |
| Manufacturing | 3.250 | 3.000 | 2.650 | 250 | 600 |
| Seafood Processing | 2.600 | 2.400 | 2.050 | 200 | 550 |
| All Other Manufacturing | 650 | 600 | 600 | 50 | 50 |
| Transportation | 1.300 | 1.300 | 1.250 | 0 | 50 |
| Trade | 3.250 | 3.250 | 3.150 | 0 | 100 |
| Wholesale | 400 | 400 | 450 | 0 | -50 |
| Retail | 2.850 | 2.850 | 2.700 | 0 | 150 |
| Finance-Ins. & R.E. | 600 | 600 | 600 | 0 | 0 |
| Services | 2.950 | 2.950 | 3.000 | 0 | -50 |
| Government | 5.500 | 5.450 | 5.450 | 50 | 50 |
| Federal | 500 | 500 | 500 | 0 | 0 |
| State | 1.550 | 1.500 | 1.500 | 50 | 50 |
| Local | 3.450 | 3.450 | 3.450 | 0 | 0 |

## Fairbanks

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 3/88 | r/ 2/88 | 3/87 | 2/88 | 3/87 |
| Nonag. Wage & Salary | 24.100 | 23.900 | 24.350 | 200 | -250 |
| Mining | 50 | 50 | 100 | 0 | -50 |
| Construction | 1.150 | 1.150 | 1.150 | 0 | 0 |
| Manufacturing | 500 | 450 | 500 | 50 | 0 |
| Transportation | 2.000 | 1.950 | 2.050 | 50 | -50 |
| Trucking & Warehousing | 350 | 350 | 350 | 0 | 0 |
| Air Transportation | 300 | 300 | 300 | 0 | 0 |
| All Other Transportation | 1.350 | 1.300 | 1.400 | 50 | -50 |
| Trade | 5.050 | 5.050 | 4.850 | 0 | 200 |
| Wholesale | 700 | 700 | 750 | 0 | -50 |
| Retail | 4.350 | 4.350 | 4.100 | 0 | 250 |
| Food Stores | 750 | 750 | 650 | 0 | 100 |
| All Other Retail | 3.600 | 3.600 | 3.450 | 0 | 150 |
| Finance-Ins. & R.E. | 850 | 850 | 900 | 0 | -50 |
| Services | 5.300 | 5.200 | 5.400 | 100 | -100 |
| Government | 9.200 | 9.200 | 9.400 | 0 | -200 |
| Federal | 2.650 | 2.700 | 2.700 | -50 | -50 |
| State | 4.000 | 3.950 | 3.950 | 50 | 50 |
| Local | 2.550 | 2.550 | 2.750 | 0 | -200 |

## Interior

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 3/88 | r/ 2/88 | 3/87 | 2/88 | 3/87 |
| Nonag. Wage & Salary | 27.600 | 27.300 | 27.750 | 300 | -150 |
| Mining | 150 | 150 | 200 | 0 | -50 |
| Construction | 1.200 | 1.200 | 1.250 | 0 | -50 |
| Manufacturing | 500 | 500 | 500 | 0 | 0 |
| Transportation | 2.250 | 2.250 | 2.400 | 0 | -150 |
| Trade | 5.450 | 5.400 | 5.100 | 50 | 350 |
| Finance-Ins. & R.E. | 950 | 900 | 950 | 50 | 0 |
| Services | 5.550 | 5.450 | 5.800 | 100 | -250 |
| Government | 11.550 | 11.450 | 11.550 | 100 | 0 |

## Southeast Alaska

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 3/88 | r/ 2/88 | 3/87 | 2/88 | 3/87 |
| Nonag. Wage & Salary | 27.350 | 26.550 | 27.050 | 800 | 300 |
| Construction | 800 | 800 | 1.000 | 0 | -200 |
| Manufacturing | 3.700 | 3.300 | 3.150 | 400 | 550 |
| Seafood Processing | 700 | 650 | 550 | 50 | 150 |
| Lumber & Paper Prod. | 2.800 | 2.450 | 2.400 | 350 | 400 |
| All Other Manufacturing | 200 | 200 | 200 | 0 | 0 |
| Transportation | 1.900 | 1.850 | 2.000 | 50 | -100 |
| Trade | 4.250 | 4.100 | 4.200 | 150 | 50 |
| Wholesale | 400 | 350 | 400 | 50 | 0 |
| Retail | 3.850 | 3.750 | 3.800 | 100 | 50 |
| Finance-Ins. R.E. | 1.050 | 1.050 | 1.050 | 0 | 0 |
| Services | 4.300 | 4.200 | 4.400 | 100 | -100 |
| Government | 11.200 | 11.100 | 11.200 | 100 | 0 |
| Federal | 1.900 | 1.900 | 1.850 | 0 | 50 |
| State | 5.100 | 5.050 | 5.100 | 50 | 0 |
| Local | 4.200 | 4.150 | 4.250 | 50 | -50 |

railroad in Skagway; and expansion of tours to the North Slope via the Dalton Highway.

The expansion of bus tours to the North Slope has several implications for Alaska's tourist industry. If the North Slope bus tour reaches its projected level for 1988, Prudhoe Bay could surpass Barrow among Alaska's northern tourist destinations. If growth continues into 1989, Prudhoe would add an Arctic tourist destination on par with Nome and Kotzebue. Besides the direct benefit to Prudhoe Bay, the increased traffic to Alaska's northernmost parts will have spin-off benefits for Fairbanks. Fairbanks serves as the distribution and transportation center for these northern tours and its lodging and transportation industries will be helped by the additional tourists.

The reopening of the White Pass Yukon route railroad is another attempt in Southeast Alaska to capture tourism dollars. Southeast tourism has traditionally been dependant upon the cruise lines for tourist traffic. While the cruise lines have been a tremendous source of traffic, the self-contained nature of cruise line tours has limited growth in spending on overnight and extended stay packages. If tourists are persuaded to stay in the area longer, a greater amount of tourist spending will result. Last years success of the Southeast Alaska Marketing Council in promoting Southeast Alaska as an independent tourist destination has stepped up efforts of the agency and additional independent tourist traffic should result.

As of this writing, cruise line traffic is up 10% over last year. Cruise/tour packages, which combine cruise trips with off-ship package tours, are currently below last years levels. Discounting of the cruise/tour packages in May could bring those levels closer to 1987. If the cruise/tour packages fail to recover, the independent travelers should fill the void left by the cruise/tour travelers. If discounts fill the cruise/tour packages to 1987 levels overall off-ship traffic should increase in Southeast.

## Per Capita Personal Income Falls Again in 1987

Alaska was one of only two states in the nation (Wyoming was the other) to experience a drop in per capita personal income in 1987. Per capita personal income in the state came in at $17,886 a 0.7% decrease from 1987. As recently as 1985, Alaska had the

### Table 3
### Per Capita Personal Income, 1987

| Rank | State | Dollars | Percent of U.S. Avg |
|---|---|---|---|
| 1 | Connecticut | $20,980 | 137 |
| 2 | New Jersey | 20,067 | 131 |
| 3 | Massachusetts | 18,926 | 123 |
| 4 | New York | 18,055 | 118 |
| 5 | **ALASKA** | 17,886 | 117 |
| 6 | Maryland | 17,722 | 116 |
| 7 | California | 17,661 | 115 |
| 8 | New Hampshire | 17,133 | 112 |
| 9 | Illinois | 16,347 | 107 |
| 10 | Virginia | 16,322 | 106 |
| 11 | Delaware | 16,238 | 106 |
| 12 | Nevada | 15,958 | 104 |
| 13 | Colorado | 15,862 | 103 |
| 14 | Minnesota | 15,783 | 103 |
| 15 | Washington | 15,444 | 101 |
| 16 | Hawaii | 15,366 | 100 |
| 17 | Rhode Island | 15,355 | 100 |
| - | **U.S. AVERAGE** | 15,340 | 100 |
| 18 | Michigan | 15,330 | 100 |
| 19 | Florida | 15,241 | 99 |
| 20 | Pennsylvania | 14,997 | 98 |
| 21 | Kansas | 14,952 | 97 |
| 22 | Wisconsin | 14,659 | 96 |
| 23 | Ohio | 14,543 | 95 |
| 24 | Missouri | 14,537 | 95 |
| 25 | Nebraska | 14,341 | 93 |
| 26 | Iowa | 14,191 | 93 |
| 27 | Georgia | 14,098 | 92 |
| 28 | Vermont | 14,061 | 92 |
| 29 | Arizona | 14,030 | 91 |
| 30 | Oregon | 13,887 | 91 |
| 31 | Indiana | 13,834 | 90 |
| 32 | Texas | 13,764 | 90 |
| 33 | Maine | 13,720 | 89 |
| 34 | North Carolina | 13,155 | 86 |
| 35 | North Dakota | 13,061 | 85 |
| 36 | Wyoming | 12,759 | 83 |
| 37 | Tennessee | 12,738 | 83 |
| 38 | Oklahoma | 12,520 | 82 |
| 39 | South Dakota | 12,511 | 82 |
| 40 | Montana | 12,255 | 80 |
| 41 | Kentucky | 11,950 | 78 |
| 42 | South Carolina | 11,858 | 77 |
| 43 | Idaho | 11,820 | 77 |
| 44 | Alabama | 11,780 | 77 |
| 45 | New Mexico | 11,673 | 76 |
| 46 | Louisiana | 11,362 | 74 |
| 47 | Arkansas | 11,343 | 74 |
| 48 | Utah | 11,246 | 73 |
| 49 | West Virginia | 10,959 | 71 |
| 50 | Mississippi | 10,204 | 67 |

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

B.E.A. Press Release 88-14. April 20, 1988.

### Table 4
### Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 3/88 | R/ 2/88 | 3/87 | P/ 3/88 | R/ 2/88 | 3/87 | P/ 3/88 | R/ 2/88 | 3/87 |
| Mining | 1,155.53 | 1,133.66 | 1,119.55 | 49.7 | 48.2 | 47.6 | 23.25 | 23.52 | 23.52 |
| Construction | 989.42 | 987.34 | 887.73 | 40.5 | 39.7 | 38.1 | 24.43 | 24.87 | 23.30 |
| Manufacturing | 498.88 | 453.96 | 520.38 | 43.8 | 38.9 | 42.9 | 11.39 | 11.67 | 12.13 |
| Seafood Processing | 363.31 | 300.31 | 319.50 | 47.0 | 38.7 | 45.0 | 7.73 | 7.76 | 7.10 |
| Lumber & Paper Prod | 663.94 | 564.75 | 624.25 | 41.6 | 37.6 | 41.7 | 15.96 | 15.02 | 14.97 |
| Trans., Comm. & Util. | 552.16 | 569.07 | 546.87 | 34.0 | 35.5 | 34.7 | 16.24 | 16.03 | 15.76 |
| Trade | 354.33 | 360.88 | 360.91 | 32.3 | 33.2 | 32.9 | 10.97 | 10.87 | 10.97 |
| Wholesale | 520.37 | 545.36 | 497.07 | 37.9 | 40.1 | 37.6 | 13.73 | 13.60 | 13.22 |
| Retail | 296.33 | 298.19 | 312.00 | 30.3 | 30.9 | 31.2 | 9.78 | 9.65 | 10.00 |
| Finance-Ins. & R.E | 367.95 | 392.50 | 379.95 | 33.0 | 34.4 | 33.3 | 11.15 | 11.41 | 11.41 |

Benchmark March 1987

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

highest per capita personal income in the nation. This year's drop placed Alaska fifth among the 50 states, a drop of two positions from 1986.

One encouraging sign from the U.S. Department of Commerce figures was that the rate of income loss slowed considerably from the previous year period. From 1985 to 1986 Alaska per capita personal income dropped at a rate of 2.6%. The drop this year was less than a third of that rate. It is noteworthy that Alaska was one of thirteen states in which the rate of per capita personal income growth was better in 1987 than 1986. Joining Alaska in this improvement were states whose economies are heavily influenced by the oil industry. Texas, Louisiana, and Oklahoma were among the states which in which the growth of per capita income accelerated in 1987.

## Table 5
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 3/88 | R/ 2/88 | 3/87 | P/ 3/88 | R/ 2/88 | 3/87 | P/ 3/88 | R/ 2/88 | 3/87 | P/ 3/88 | R/ 2/88 | 3/87 |
| Alaska Statewide . . . . . . . | 241,687 | 239,567 | 242,403 | 26,008 | 26,538 | 32,600 | 10.8 | 11.1 | 13.4 | 215,679 | 213,029 | 209,803 |
| Anch.-MatSu Region . . . . . | 126,767 | 126,317 | 129,360 | 11,882 | 12,024 | 14,918 | 9.4 | 9.5 | 11.5 | 114,885 | 114,293 | 114,442 |
| Anchorage Borough . . . . | 112,033 | 111,593 | 113,811 | 9,141 | 9,297 | 11,586 | 8.2 | 8.3 | 10.2 | 102,892 | 102,296 | 102,225 |
| MatSu Borough . . . . . . . | 14,734 | 14,724 | 15,549 | 2,741 | 2,727 | 3,332 | 18.6 | 18.5 | 21.4 | 11,993 | 11,997 | 12,217 |
| Gulf Coast Region . . . . . . | 26,188 | 25,799 | 25,283 | 3,799 | 3,916 | 4,562 | 14.5 | 15.2 | 18.0 | 22,389 | 21,883 | 20,721 |
| Kenai Peninsula Bor . . . | 16,852 | 16,557 | 16,401 | 2,868 | 2,889 | 3,459 | 17.0 | 17.4 | 21.1 | 13,984 | 13,668 | 12,942 |
| Kodiak Island Bor . . . . . | 5,441 | 5,450 | 5,149 | 286 | 412 | 378 | 5.3 | 7.6 | 7.3 | 5,155 | 5,038 | 4,771 |
| Valdez-Cordova . . . . . . . . | 3,895 | 3,792 | 3,733 | 645 | 615 | 725 | 16.6 | 16.2 | 19.4 | 3,250 | 3,177 | 3,008 |
| Interior Region . . . . . . . . . | 35,888 | 35,494 | 36,233 | 5,161 | 5,167 | 6,427 | 14.4 | 14.6 | 17.7 | 30,727 | 30,327 | 29,806 |
| Fairbanks North Star Br | 30,650 | 30,345 | 30,936 | 4,101 | 4,142 | 5,184 | 13.4 | 13.6 | 16.8 | 26,549 | 26,203 | 25,752 |
| Southeast Fairbanks . . . | 2,198 | 2,171 | 2,175 | 406 | 402 | 436 | 18.5 | 18.5 | 20.0 | 1,792 | 1,769 | 1,739 |
| Yukon-Koyukuk . . . . . . . | 3,040 | 2,978 | 3,122 | 654 | 623 | 807 | 21.5 | 20.9 | 25.8 | 2,386 | 2,355 | 2,315 |
| Northern Region . . . . . . . | 8,153 | 7,942 | 8,122 | 816 | 738 | 1,112 | 10.0 | 9.3 | 13.7 | 7,337 | 7,204 | 7,010 |
| Nome . . . . . . . . . . . . . . . | 3,167 | 3,054 | 3,190 | 375 | 313 | 522 | 11.8 | 10.2 | 16.4 | 2,792 | 2,741 | 2,668 |
| North Slope Borough . . | 2,846 | 2,789 | 2,780 | 145 | 137 | 200 | 5.1 | 4.9 | 7.2 | 2,701 | 2,652 | 2,580 |
| Northwest Arctic Bor . . . | 2,140 | 2,099 | 2,152 | 296 | 288 | 390 | 13.8 | 13.7 | 18.1 | 1,844 | 1,811 | 1,762 |
| Southeast Region . . . . . . . | 32,899 | 32,318 | 32,619 | 3,322 | 3,706 | 4,362 | 10.1 | 11.5 | 13.4 | 29,577 | 28,612 | 28,257 |
| Haines Borough . . . . . . . | 851 | 874 | 884 | 105 | 152 | 171 | 12.3 | 17.4 | 19.3 | 746 | 722 | 713 |
| Juneau Borough . . . . . . | 14,087 | 13,683 | 13,878 | 900 | 926 | 1,280 | 6.4 | 6.8 | 9.2 | 13,187 | 12,757 | 12,598 |
| Ketchikan Gateway Br | 6,466 | 6,389 | 6,438 | 622 | 735 | 855 | 9.6 | 11.5 | 13.3 | 5,844 | 5,654 | 5,583 |
| Pr. of Wales-Outer Ktch | 2,529 | 2,555 | 2,528 | 409 | 504 | 503 | 16.2 | 19.7 | 19.9 | 2,120 | 2,051 | 2,025 |
| Sitka Borough . . . . . . . . | 3,890 | 3,834 | 3,774 | 343 | 403 | 385 | 8.8 | 10.5 | 10.2 | 3,547 | 3,431 | 3,389 |
| Skagway-Yakutat-Ang | 1,754 | 1,702 | 1,700 | 445 | 436 | 449 | 25.4 | 25.6 | 26.4 | 1,309 | 1,266 | 1,251 |
| Wrangell-Petersburg . . . . | 3,322 | 3,281 | 3,417 | 498 | 550 | 719 | 15.0 | 16.8 | 21.0 | 2,824 | 2,731 | 2,698 |
| Southwest Region . . . . . . | 11,792 | 11,697 | 10,786 | 1,028 | 987 | 1,219 | 8.7 | 8.4 | 11.3 | 10,764 | 10,710 | 9,567 |
| Aleutian Islands . . . . . . . | 3,234 | 3,187 | 2,885 | 134 | 103 | 130 | 4.1 | 3.2 | 4.5 | 3,100 | 3,084 | 2,755 |
| Bethel . . . . . . . . . . . . . . | 4,550 | 4,492 | 4,173 | 420 | 383 | 503 | 9.2 | 8.5 | 12.1 | 4,130 | 4,109 | 3,670 |
| Bristol Bay Borough . . . | 426 | 430 | 400 | 52 | 58 | 68 | 12.2 | 13.5 | 17.0 | 374 | 372 | 332 |
| Dillingham . . . . . . . . . . . | 2,105 | 2,108 | 1,975 | 182 | 194 | 266 | 8.6 | 9.2 | 13.5 | 1,923 | 1,914 | 1,709 |
| Wade Hampton . . . . . . . | 1,477 | 1,480 | 1,353 | 240 | 249 | 252 | 16.2 | 16.8 | 18.6 | 1,237 | 1,231 | 1,101 |

P/ Preliminary R/ Revised 1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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# ALASKA ECONOMIC TRENDS

June
1988

A Profile of Older Alaskans

Insights to Anchorage's Recession

Anchorage Consumer Price Index Base Period Converted

Alaska's Employment Scene

ALASKA DEPARTMENT OF LABOR STEVE COWPER, GOVERNOR

# Alaska Economic Trends

*Steve Cowper*, Governor, State of Alaska

*Jim Sampson*, Commissioner
Department of Labor

*Frank Spargo*, Director
Administrative Services

*Chuck Caldwell*, Chief
Research and Analysis
*John Boucher*, Editor

June 1988
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**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

**_Alaska Economic Trends_ is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.**

**We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact John Boucher, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.**

# A Profile of Older Alaskans

**By Neal Fried**

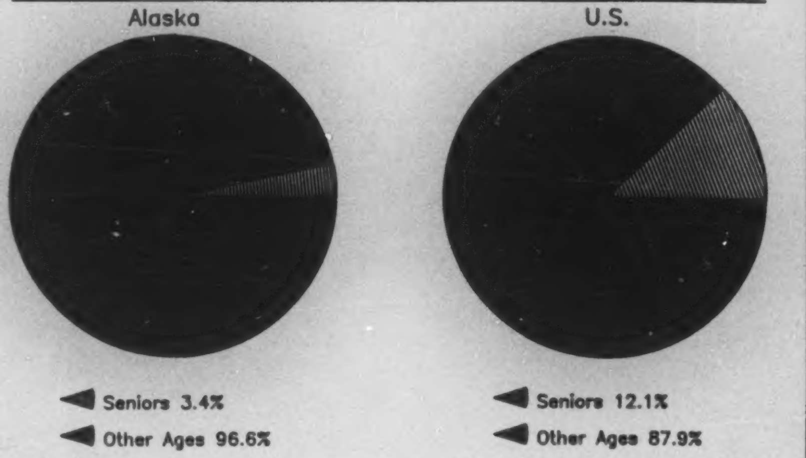
Alaska's older population more than doubled during the past decade. In 1986 it was 18,332 strong. Today it is one of the fastest growing age groups in the state. It also represents the fastest growing body of senior citizens in the country. The aging of the state's and nation's citizens poses both challenges and opportunities. These challenges and opportunities will continue to grow into the 21st century, as the "baby boom" generation joins the ranks of those over the age of 65.

While Alaskan seniors are a dynamic population, current statistics on this group are scanty at best. A wealth of information exists from the 1980 Census, but much has happened in this state since then. The information in this article relies on current Alaska Department of Labor's population estimates and a variety of other sources. Unless otherwise specified, older Alaskans (or seniors) are defined as residents age 65 and older.

### A Small But Fast Growing Group

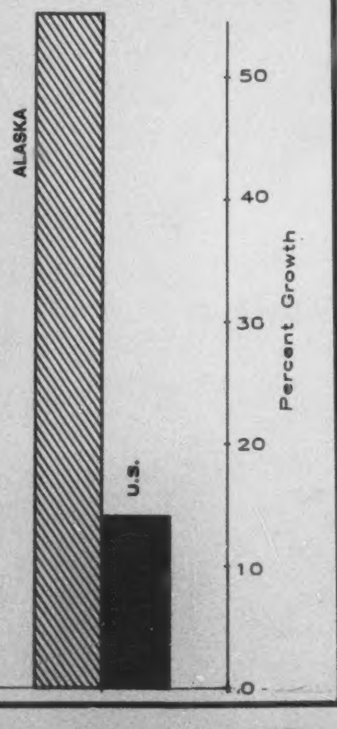
The number of Alaskan seniors is increasing rapidly, but both numerically and proportionately they still represent the smallest group of seniors in the country. As illustrated in Figure 1, the proportion of seniors in Alaska is only one quarter that of the nation's. Despite the seniors' small population size, it's growth rate is nearly four times the national average (Figure 2). Does this mean that Alaska seniors' slice of the pie will increasingly resemble the nation's? According to Department of Labor estimates, older Alaskans' share of the total population may be as high as 5% by 1990. Slow total population growth and rapid growth in seniors are the reasons.

Figure 1
Alaska and U.S. Seniors, 1986



Source: Alaska Dept. of Labor, Research & Analysis.

Figure 2
Growth of the Senior Population 1980-1986



Source: Alaska Dept. of Labor, Research & Analysis.

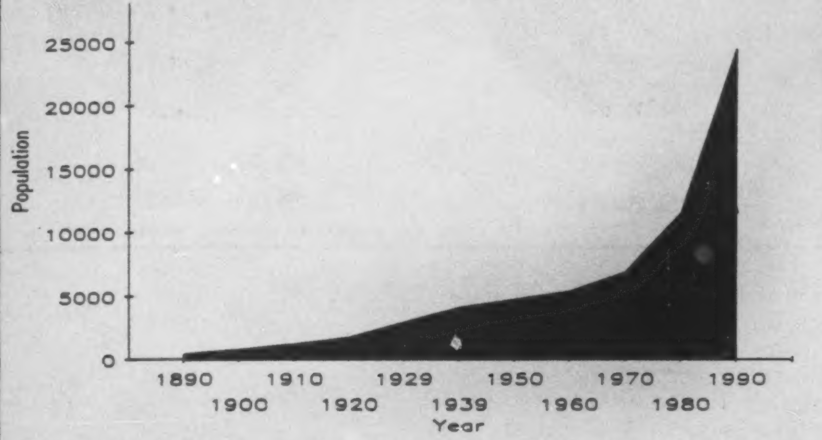
The frontier characteristics of our state help explain our smaller population of older Alaskans. Alaska typically attracts young people of 25-40 years of age. This population in turn has children, which further adds to the youthful characteristics of the population. This bulge in the younger ages means the top of the age pyramid becomes relatively smaller.

## Table 1
## Alaska's Population By Age

| Age | 1980[1] | 1986[2] | Percent Change |
|---|---|---|---|
| 0-4 | 38,949 | 59,573 | 53.0 |
| 5-9 | 35,043 | 47,500 | 35.5 |
| 10-14 | 34,282 | 39,696 | 15.8 |
| 15-19 | 37,154 | 38,874 | 4.6 |
| 20-24 | 45,090 | 51,938 | 15.2 |
| 25-29 | 48,645 | 64,384 | 32.4 |
| 30-34 | 42,163 | 63,938 | 51.6 |
| 35-39 | 31,316 | 53,552 | 71.0 |
| 40-44 | 22,706 | 36,310 | 59.9 |
| 45-49 | 18,404 | 25,805 | 40.2 |
| 50-54 | 15,839 | 19,258 | 21.6 |
| 55-59 | 12,617 | 16,102 | 27.6 |
| 60-64 | 8,096 | 12,388 | 53.0 |
| 65-69 | 5,206 | 7,788 | 49.6 |
| 70-74 | 3,106 | 4,915 | 58.2 |
| 75-79 | 1,845 | 3,038 | 64.7 |
| 80-84 | 771 | 1,454 | 88.6 |
| 85+ | 619 | 1,137 | 83.7 |
| 65+ | 11,547 | 18,332 | 58.8 |
| Total | 401,851 | 547,600 | 36.3 |

Source: [1] U.S. Bureau of Census
[2] Alaska Department of Labor,Research and Analysis

Figure 3
1890-1990: A Century of Older Alaskans



Sources: US Dept. of Commerce, Census Bureau; AK Department of Labor, R&A

Another reason for the small senior population is because as Alaska's population ages they begin to leave the state. This does not begin at typical retirement age but actually starts as early as 40-45. According to the census, for every senior citizen who enters the state, more than three leave. Since 1980, there is evidence this net loss may have slowed down.

The frontier character of Alaska also shows up in the ratio of senior men to women (Figure 5). There are proportionately more senior men in Alaska than in the rest of the nation. As late as 1980, there were an equal number of senior men and women. This is not because Alaskan men live longer than their counterparts elsewhere in the country. In fact, they live about one year less. Instead, it is because more men migrate to Alaska than women. As the older population ages, the ratio of women to men increases. This is because women live longer than men: 76.5 years from birth, versus 68.8 for men. By the year 2005 life expectancy will increase to 72.2 years for Alaskan men and 80.1 for women.

A majority of the state's seniors live in urban Alaska, but rural Alaska has proportionately more seniors than urban Alaska. This is because a higher percentage of Alaska Native seniors remain in the state. The Native population also predominantly resides in

**The proportion of seniors in Alaska is only one quarter that of the nation's.**

rural Alaska. Different migration patterns affect the ethnic mix of the state's elderly population as well. The share of the black and white populations shrink as they age because of out-migration. The share of the Alaskan Native population does the reverse because of the out-migration of the other ethnic groups.

The most interesting fact regarding the geographic distribution of older Alaskans (Table 2) is that communities in Southeast Alaska have the highest concentration of seniors. One reason for this could be that many Southeast communities have existed for a longer period of time and have an established older population. A more moderate climate may also help explain these statistics.

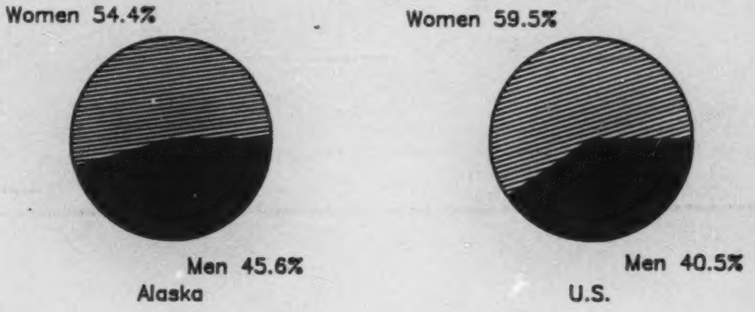
The senior population's growth rate is racing far ahead of the rest of the population. From 1980-1986 it grew 59% compared to 36% overall. Among the elderly there is a great deal of variety and they can't be just all lumped together as one homogenous group. For example, the 65-74 age group grew by 53%. The fastest growing segment is the 80+ age group which grew by 86%. The implications of the rapid growth of this group are many. They are the heaviest users of health care and many other services. A significant percentage live in institutional facilities—though 57% are homeowners. This also means a growing number of seniors will be caring for older relatives, and four generation families may become more common.

### Table 2
### Senior Population of Alaska's Boroughs & Census Areas 1986

| | Senior Population | Population Total | Percent Seniors |
|---|---|---|---|
| **ALASKA** | 18,332 | 547,600 | 3.3 |
| Anchorage Borough | 6,145 | 236,934 | 2.6 |
| Fairbanks North Star Borough | 2,145 | 73,540 | 2.9 |
| Kenai Peninsula Borough | 1,578 | 40,414 | 3.9 |
| Mat-Su Borough | 1,374 | 38,847 | 3.5 |
| Juneau Borough | 1,240 | 26,422 | 4.7 |
| Ketchikan Gateway Borough | 811 | 12,436 | 6.5 |
| Bethel Census Area | 589 | 13,163 | 4.5 |
| Wrangell/Petersburg Census Area | 478 | 6,789 | 7.0 |
| Sitka Borough | 476 | 8,102 | 5.9 |
| Yukon-Koyukuk Census Area | 417 | 9,353 | 4.5 |
| Valdez-Cordova Census Area | 401 | 8,830 | 4.5 |
| Kodiak Island Borough | 400 | 13,561 | 2.9 |
| Nome Census Area | 389 | 7,911 | 4.9 |
| Northwest Arctic Borough | 271 | 6,010 | 4.5 |
| Dillingham Census Area | 247 | 5,950 | 4.2 |
| Wade Hampton Census Area | 240 | 5,715 | 4.2 |
| Skagway-Yakutat-Angoon Census Area | 221 | 3,784 | 5.8 |
| Southeast Fairbanks Census Area | 219 | 6,822 | 3.2 |
| Prince of Wales-Outer Ketchikan C.A. | 194 | 5,023 | 3.9 |
| North Slope Borough | 190 | 5,520 | 3.4 |
| Haines Borough | 141 | 1,881 | 7.5 |
| Aleutian Islands Census Area | 131 | 9,296 | 1.4 |
| Bristol Bay Borough | 35 | 1,297 | 2.7 |

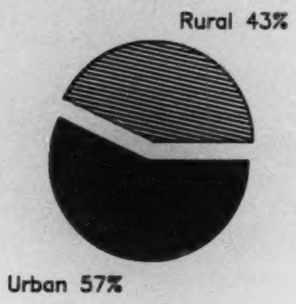
Source: Alaska Department of Labor, Research and Analysis Section.

Figure 4
Alaska and U.S. Seniors, Ratio of Women/Men 1986



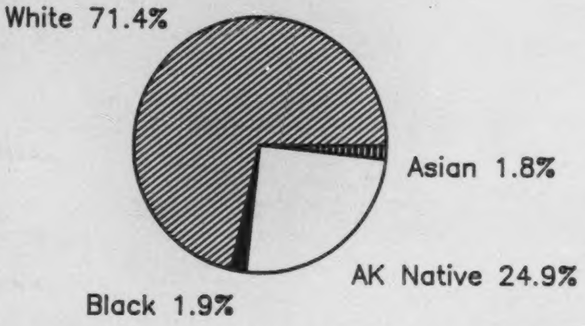
Source: Alaska Department of Labor, Research & Analysis

Figure 5
Where Older Alaskans Live



Source: U.S. Dept. of Commerce, Bureau of the Census, 1980.

Figure 6
Older Alaskans by Race, 1980



Source: U.S. Dept. of Commerce, Bureau of the Census, 1980.

**Older Alaskans' share of the total population may be as high as 5% by 1990.**

### Income And Poverty

There is little current data regarding the income status of Alaskan seniors. A survey of longevity bonus recipients, commissioned by the Older Alaskan Commission provides the most recent income data for seniors. According to the results, an equal number of senior's incomes (18%) were $5,000 and less and $20,000 and more. Half of the seniors had incomes of $9,999 and less. The single largest group fell in the $5,000-9,999 category. Three quarters of Native Alaskans, and Asian and Pacific Islanders had incomes of $9,999 or less. This compares to 42% for whites and 57% for blacks. Incomes of women were significantly less than those of men.

The single most important source of income is Social Security. Eighty-nine percent of Alaskan seniors receive Social Security. Other important sources are savings, retirement benefits, and the Longevity Bonus. The Longevity Bonus is Alaska's unique solution to provide an incentive to older Alaskans to remain in the state. It provides $250 in monthly payments to residents who are 65 years of age or older and are physically present in the state. Presently 17,752 older Alaskans receive the bonus. Despite these various programs, income falls substantially after a person retires. This means more seniors slip into poverty. For example, in 1980, 14.2% of Alaska seniors lived below the poverty level compared to 10.7% for the overall population. However, the 1980 rate was a substantial improvement over 1970, when it was 24.4%. Increases in Social Security benefits, Medicaid, Medicare, the Longevity Bonus, property tax relief, Permanent Fund dividends and other programs helped to improve the average senior's situation.

## Table 3
## Income Bracket of Older Alaskans
## by Race, 1984

| Income Bracket | White | Percent of Total | Native | Percent of Total | Black | Percent of Total | Asian | Percent of Total | All Races | Percent of Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Less than $5,000 | 894 | 12.8 | 662 | 32.3 | 31 | 20.3 | 66 | 39.8 | 1,653 | 17.7 |
| $5,000-$9,999 | 2,021 | 28.9 | 951 | 46.4 | 57 | 37.3 | 63 | 38.0 | 3,092 | 33.1 |
| $10,000-$14,999 | 1,519 | 21.7 | 278 | 13.6 | 31 | 20.3 | 18 | 10.8 | 1,846 | 19.7 |
| $15,000-$19,999 | 998 | 14.3 | 91 | 4.4 | 18 | 11.8 | 7 | 4.2 | 1,114 | 11.9 |
| $20,000+ | 1,554 | 22.2 | 67 | 3.3 | 16 | 10.5 | 12 | 7.2 | 1,649 | 17.6 |
| Total | 6,986 | 100.0 | 2,049 | 100.0 | 153 | 100.0 | 166 | 100.0 | 9,354 | 100.0 |

Source: *Research on Aging*, Vol X No. 2, June 1988.

### The Labor Force

Labor force statistics are meager for older Alaskans. Recent unemployment rates do not exist for older Alaskans, but we know 427 older Alaskans drew unemployment insurance benefits in 1987. Concentrations of senior unemployment insurance claimants exist in the services and trade industries. The figures also indicate many seniors are still active in the construction and fish processing (manufacturing) industries. The average duration of unemployment for these claimants was 13.8 weeks compared to 17 weeks for all claimants. When the seniors' unemployment rate was last measured in 1980 it was similar to the rest of the population, 9.2% versus 9.7%.

About 3,300-4,000 (or 15-18%) older Alaskans are active in today's labor market. A decreasing share of the state's older citizens remain active in the labor market; in 1970, 28% of Alaska's seniors were active in the labor market versus 20% in 1980. Early retirement, higher Social Security payments and better pension plans have encouraged this trend. For example, beginning in 1986 the State of Alaska allowed some of its workers to take retirement at age 50 because of budget shortfalls. A number of the oil companies also lowered their retirement age limits for similar reasons. How much longer this trend of earlier retirement will continue is difficult to judge. An emerging trend

## Table 4
## Income Bracket of Older Alaskans
## by Sex, 1984

| Income Bracket | Male | Percent of Total | Female | Percent of Total |
|---|---|---|---|---|
| Less than $5,000 | 488 | 10.7 | 1,165 | 24.4 |
| $5,000-$9,999 | 1,268 | 27.7 | 1,824 | 38.2 |
| $10,000-$14,999 | 1,026 | 22.4 | 820 | 17.2 |
| $15,000-$19,999 | 700 | 15.3 | 414 | 8.7 |
| $20,000+ | 1,095 | 23.9 | 554 | 11.6 |
| Total | 4,577 | 100.0 | 4,777 | 100.0 |

Source: *Research on Aging*, Vol. X No. 2, June, 1988.

## Table 5
## Senior Alaskan UI Claimants
## By Industry
## 1987

| Industry | Claims | Percent of Total |
|---|---|---|
| Mining | 20 | 4.7 |
| Construction | 59 | 13.8 |
| Manufacturing | 48 | 11.2 |
| Trans. Comm., & Utils. | 32 | 7.5 |
| Trade | 66 | 15.5 |
| F.I.R.E. | 14 | 3.3 |
| Services | 126 | 29.5 |
| Government | 58 | 13.6 |
| Other | 4 | 0.9 |
| Total | 427 | 100.0 |

Source: Alaska Department of Labor, Research and Analysis.

for older workers to delay retirement in preference to part time work could reverse this trend.

**The Future Labor Market**

Part-time employment is becoming increasingly available in the economy across all occupational categories. Flex time and job sharing remain the exception, but most observers believe they will increase dramatically in the future. An increasingly service oriented economy means physical prowess is less important. The health and educational levels of seniors have been improving year-by-year. All of these trends should bode well for the senior worker who wishes to remain in the work force. However, there are many barriers which the older Alaskan worker faces which discourage their continued participation in the labor force. Dr. Iseli Krauss, a gerontological consultant, identified many of these in her study on "Barriers to Employment of Older Alaskans" (See insert). Positive attributes of older Alaskans in the work place, such as dependability, were also identified.

Another important trend which may have long term implications for older workers is based on the many predictions of future national labor shortages. The number of young workers entering the work force is much smaller today because their parents had fewer children. There is also the concern that many of these youth will not have the necessary skills. Labor shortages are already occurring in some areas of the country. Innovations to attract seniors back into the work force are slowly developing. Japan, plagued by labor shortages for more than 20 years, has encouraged its older workers to remain in the labor force. Subsequently, they have one of the highest older worker participation rates among the industrialized countries. Out of sheer necessity, employers may have to aggressively tap the labor resources of seniors.

**Employment Advantages to Older Alaskans**

- An experienced work force.
- More loyal.
- More reliable, dependable and punctual.
- Patient.
- Willing to work flexible schedules.

**Employment Barriers to Older Alaskans**

- Lack of appropriate training, education and previous work experience.
- Age discrimination.
- Social security benefits are penalized if a person between the ages of 65-70 earns more than per $8,400 year.
- Perception by employers that older workers are less willing to learn new skills.
- Younger employees do not want to supervise older workers.
- Lack of transportation.
- Health and frailty.
- Many employers want a "youthful" work force image.
- A poor economy.
- A perception by seniors that they are taking employment opportunities away from younger workers.
- A lack of awareness of programs which help seniors find employment.
- Lack of confidence and motivation.
- Reluctance to relocate.
- Working hours not flexible enough.
- Employers don't want to invest many resources in a person that may not be with the company long.

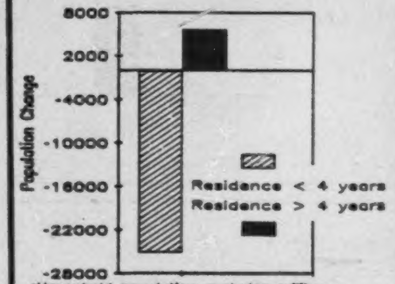
# Insights to Anchorage's Recession

**By Greg Huff**

We have all heard of the recession and many Anchorage residents have experienced it first hand. They have lost jobs, homes, businesses and investments. Many statistics have monitored and recorded the loss of jobs and investments, as well as bankruptcies and foreclosures. These key economic indicators, however, lack geographic and demographic detail. This article examines statistics from the Municipality of Anchorage Department of Economic Development and Planning (DEDP).[1] These statistics yield some interesting insights into the impacts on Anchorage residents and neighborhoods during the severest segment of the recession. One overriding theme is clear from the data—the recession affected neighborhoods and their residents differently.

Between 1985 and 1987 Anchorage's employment declined 12% and population declined 8%. These losses represent 13,400 jobs and 19,150 people. According to DEDP's figures 66% of those persons leaving the city from 1985 to 1987 had lived there less than 4 years (Figure 1). Those in Anchorage less than a year accounted for nearly half of Anchorage's population decline. The net result was a decline of "newcomers" by 25,000. This decline was partially offset, however, by a net increase of 5,600 people who had been in Anchorage for four or more years. During this time, the average length of residence increased from 9.0 to 10.1 years. Nearly nine percent of the population had lived in Anchorage for more than 25 years.

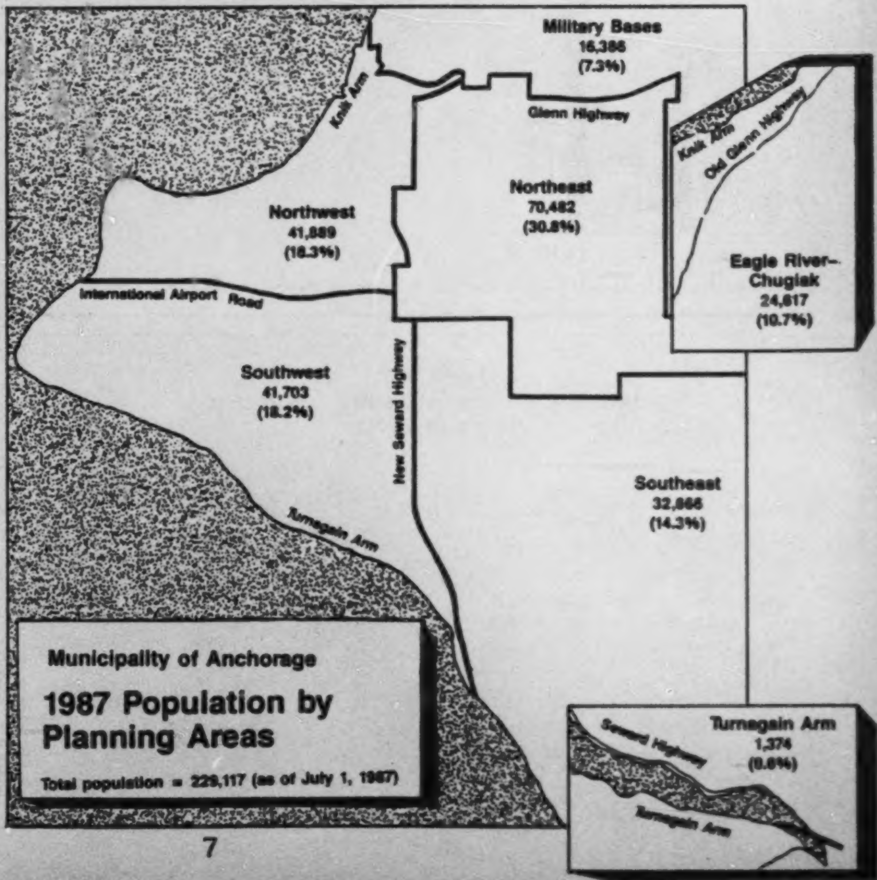
Figure 1
Anchorage Population
Change by Length of
Residence* 1985-1987



*Household population excludes military on-base households

Source: Municipality of Anchorage, Community Planning Department.

The recession had a lopsided effect on the young adult population, in particular, the young male population. For example, although young adults aged 20 to 34 represented 35% of Anchorage's population, they accounted for nearly 80% of the population losses between 1985 and 1987 (Figure 2). Two-thirds of the decline was male.



Municipality of Anchorage

1987 Population by Planning Areas

Total population = 229,117 (as of July 1, 1987)

### Labor Force Characteristics

Civilian labor force statistics are another indicator highlighting the recession's adverse impact on the male population. The number of males in the civilian labor force declined more than 13,000 compared to 2,600 for women. The majority of these males were in the 20 to 34 year old bracket. The proportion of males fell from slightly over 52% of the work force in 1985 to 50.3% in 1987. It is likely that the large decline in the male work force was due to the contraction in the construction and oil field services industries. While the labor force participation rate for men declined slightly, it increased for

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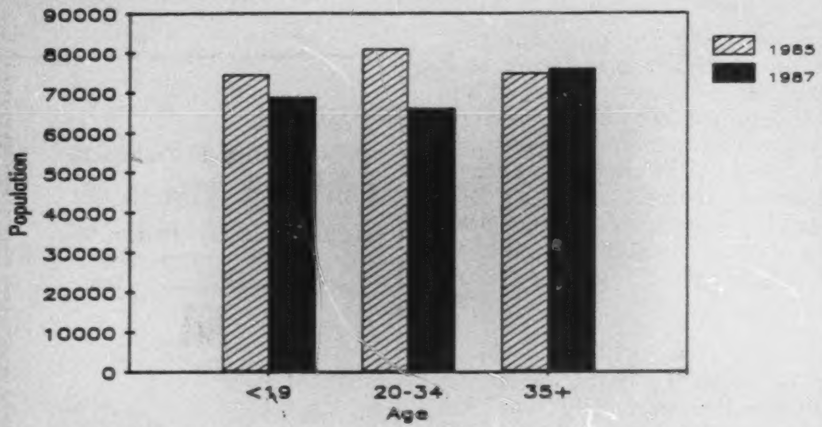
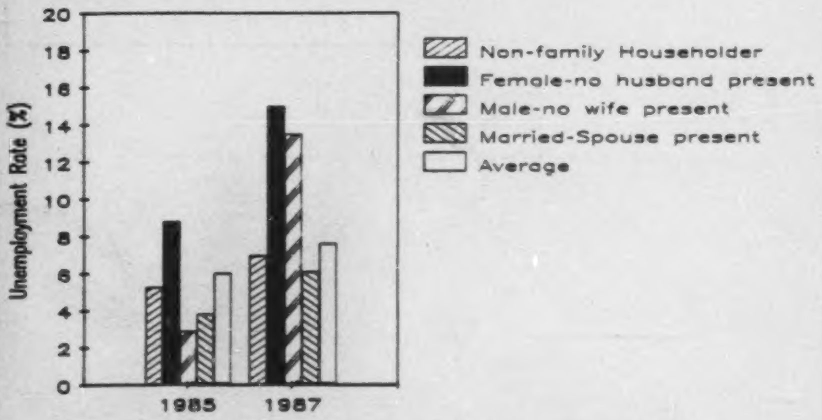
[1] In 1988 the name of the Department was changed from the Community Planning Department to the current Department of Economic Development and Planning. Also a special thanks to Mike Breedlove, the Municipal Demographer, for additional information and insights for this article.

## Figure 2
## Population Change by Age 1985-1987



Source: Anchorage Department of Economic Development and Planning

## Figure 3
## Unemployment Rate of Householders



Source:Municipality of Anchorage; Dept. of Economic Development and Planning

### Table 1
### Household Characteristics For Anchorage
### 1985 and 1987

| | 1985 | 1987 | Percent Change |
|---|---|---|---|
| Total Households | 81,663 | 77,527 | -5.1 |
| Family Households | 58,119 | 55,831 | -3.9 |
| Single Parent w/children under 18 | 5,778 | 6,181 | 6.9 |
| Married couple w/children under 18 | 26,347 | 25,065 | -4.9 |
| Family Household no children under 18 | 26,014 | 24,599 | -5.4 |
| Nonfamily Household | 23,542 | 21,696 | -7.8 |

Source: Municipality of Anchorage: Department of Economic Development and Planning; *1987 Anchorage Population Profile*.

women 25-64 years old. One explanation is that more women entered the labor force to help support the family.

**Household Characteristics**

Changing population characteristics caused by the recession have had an enormous impact on household characteristics as well. Table 1 shows nonfamily households (households with no family members living together) declined more than other household types. At the same time the number of single parents with children less than 18 years old at home increased, particularly the number of single mothers. The unemployment rates for heads of households increased across the board, but the single parents averaged the highest unemployment rate (Figure 3).

From 1985 to 1987 the number of households fell, while the number of housing units increased from 88,804 to 91,298. This left 13,771 housing units vacant, a vacancy rate of 15%. Vacancy rates varied by the type of housing unit (Table 2). Because young adults have a greater likelihood of living in a multi-unit housing complex than other adult groups, the loss of young adults and the high vacancy rates in multi-family units go hand-in-hand.

**Geographic Differences**

Within the Municipality there are unique neighborhoods and a number of ways to group them (by community council, census tract, zoning), but for simplicity this article uses DEDP's planning areas. These geographic areas are illustrated in Map 1.[2]

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[2] The Department of Economic Development and Planning also collects data by community council and census tract levels.

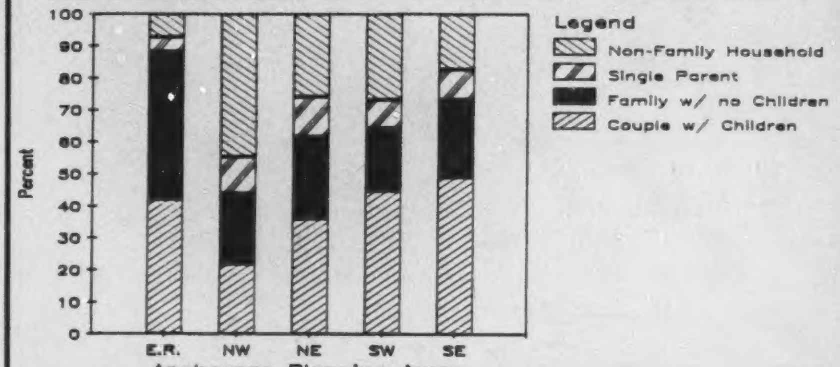
North Anchorage lost the most population due to the recession. Seventy-five percent of the 19,146 two-year population loss took place in north Anchorage. The northeast area declined by 7,500 and northwest by 6,887. The Eagle River-Chugiak area had the smallest population declines—2.8% compared to 14.1 for northeast Anchorage (Table 3).

The differences between population losses in the various areas are explained by their demographic and housing characteristics. Remember that nearly 80% of the population decline was among young adults 20 to 34 years old, a majority of which were male. In addition, population declines among nonfamily households were the most prominent among household types and multi-family housing units were the hardest hit among housing types.

North Anchorage had all the right demographic and housing characteristics for large population declines. For example, north Anchorage in 1985 had 59% of Anchorage's 20-34 year olds. From 1985 to 1987 10,580 of those 20-34 year olds left Anchorage—This was nearly three quarters of the 20-34 year olds leaving Anchorage between 1985 and 1987. North Anchorage also had the highest concentration of residents who had lived in Anchorage for 4 or less years. Furthermore, the north areas also had the highest proportion of non-family households (Figure 4) and multi-family housing (Figure 5).

Eagle-River Chugiak housing stock is 76% single family homes and the majority of this areas population are married couple families. These characteristics, combined with the close proximity to the military bases (many military families live off-base in the area) accounted for mild population declines.

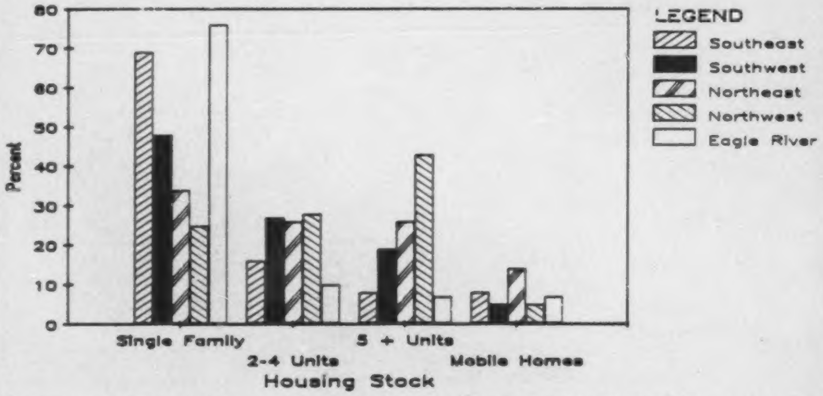
Figure 4
Household Characteristics for Anchorage Planning Areas 1987



E.R.—Eagle River, NW—Northwest, NE—Northeast, SW—Southwest, SE—Southeast

Source: Anchorage Department of Economic Development and Planning

Figure 5
Housing Stock by Type for Selected Areas 1987



Source: Anchorage Department of Economic Development and Planning

**The recession had a lopsided effect on the young adult population.**

### Table 2
### Vacancy Rates for Anchorage By Type of Housing Unit 1985 and 1987

| | 1985 | 1987 |
|---|---|---|
| Single Family | 4.3% | 7.1% |
| 2-4 units[1] | 8.3 | 16.5 |
| 5 or more units[2] | 14.4 | 26.0 |
| Mobile homes | 7.6 | 19.9 |
| All structures | 8.0 | 15.1 |

Source: Municipality of Anchorage; Department of Economic Development and Planning; *1987 Anchorage Population Profile.*

[1] Includes zero-lot lines, condominiums and apartments.

[2] Includes condominiums and apartments.

### Table 3
### Total Anchorage Population By Planning Area 1985-1987

| | 1985 | 1987 | Percent Change |
|---|---|---|---|
| Eagle River–Chugiak | 25,067 | 24,617 | -2.8 |
| Anchorage Bowl | 205,186 | 186,740 | -9.0 |
| Northwest Anchorage | 48,776 | 41,889 | -14.1 |
| Northeast Anchorage | 77,945 | 70,482 | -9.6 |
| Southwest Anchorage | 45,044 | 41,703 | -7.4 |
| Southeast Anchorage | 33,421 | 32,666 | -2.3 |
| Turnagain Arm | 1,607 | 1,374 | -14.4 |
| Military Bases | 16,403 | 16,386 | -0.01 |
| Total Anchorage | 248,263 | 229,117 | -7.7 |

Source: Municipality of Anchorage; Department of Economic Development and Planning; *1987 Anchorage Population Profile.*

### Conclusion

In 1988 employment decreases moderated considerably, compared to the 1986-1987 period. Forecasts call for employment growth in late 1988 and 1989. Theory holds that population will follow suit. However, until there is a strong resurgence in construction activity, it is unlikely that young males will migrate to Anchorage in the numbers they did during the 80's construction boom. Anchorage's future demographic characteristics will be shaped by the events between 1985-1987.

The recession has caused the male to female population and labor force ratios to approach the closest to 50/50 in Anchorage's history. The newest and youngest Anchorage residents tended to be the group of residents to leave because of the lack of jobs. In turn, Anchorage's median age and the average length of residency increased. Experts believe these trends will continue.

## Anchorage Consumer Price Index Base Period Converted

**By John Boucher**

Beginning with the release of Consumer Price Index (CPI) data for January of 1988, the Bureau of Labor Statistics has converted most Consumer Price Indexes, including the CPI for Anchorage, to a new reference base year. All indexes previously expressed on a base of 1967=100, or any other base through December of 1981, have been rebased to 1982-84=100. Only indexes with a base later than December 1981 have maintained their bases. The rebasing is a result of the U.S. Government's long-standing policy to update index bases periodically.

Selection of the 1982-84 period as the new reference base for the Consumer Price Index was designed to coincide with the updating of consumer expenditure weights, which were based upon Consumer Expenditure Surveys which took place in 1982, 1983 and 1984. The last time the Consumer Price Index was converted to a new base was in 1971 when the 1967 base was substituted for the 1957-59 base.

The rebasing of the Consumer Price Index is part of an ongoing five year program begun in 1984 by the Bureau of Labor Statistics to enhance the CPI. Beginning in January 1987, the CPI is now published for Anchorage on a semi-annual basis where before the Anchorage index was published every other month. The semi-annual average represents the arithmetic average of the six-month periods from January to June and July to December. The semi-annual averages are published with the release of the CPI for July and January.

Historical data for each CPI series published by the Bureau of Labor Statistics (BLS) on the new base are available through the Alaska Department of Labor, Research and Analysis or the BLS. As a convenience to users of the CPI the BLS will continue to publish the all-items indexes for the U.S. city average, and for the individual local areas for which CPI's are published on their former official reference bases. However the BLS is encouraging all users of the CPI, especially those with contractual agreements providing for escalation on the basis of the CPI, to incorporate the change in the reference base in new contracts or at the time of renegotiation.

## Method of Conversion

The historical index series has been rebased to the new reference period by dividing each index value, on the original base, by the average index value for the 1982-84 period, on the original base and multiplying the result by 100. Conversion factors for the U.S. City average and Anchorage CPI's are shown in Table 1. Multiplication by the conversion factor converts an index on the old base to the 1982-84 base. An example of how to use the conversion factor is also shown in Table 1. Conversion factors for all local areas for which a CPI is published are available from the BLS.

### Table 1
### Conversion Rate for the CPI, U.S. City and Anchorage, AK.

| | Former Base | CPI-U Conversion Factor | CPI-W Conversion Factor |
|---|---|---|---|
| U.S. City Average | 1967 = 100 | 0.3338279 | 0.3357175 |
| Anchorage, AK. | Oct '67 = 100 | 0.3746257 | 0.3842254 |

Using the Conversion Factor:

Nov. 1986 CPI-U for Anchorage = 287.8

287.8 • 0.3746257 = 107.8 = Dec. 1986 CPI-U on the new base.

Division by the conversion factor will change an index on the 1982-84 base period into the former base.

Second Half 1987 Anchorage CPI-U = 108.1

108.1/ .3746257 = 288.5 = Second Half 1987 CPI-U on old base.

## Effects of the Conversion

Adoption of the new base period does not affect the measurement of percent changes in a given index series from one period to another, except for possible rounding differences. Index point changes are however usually effected. The example below illustrates the different effects of rebasing on index points and percent changes.

| **Base** | **Dec. 1985 Index** | **Dec. 1986 Index** | **Index Point Change** | **Index Percent Change** |
|---|---|---|---|---|
| Oct 67 = 100 | 286.9 | 287.8 | 0.9 | 0.3 |
| 1982-84 = 100 | 107.5 | 107.8 | 0.3 | 0.3 |

## Table 2
## Consumer Price Indexes for All Urban Consumers
## CPI-U
## 1982-84 = 100

| Year | All Items | Ann Avg Percent Change | All Items Less Shelter | Ann Avg Percent Change | Apparel and Upkeep | Ann Avg Percent Change | Entertainment | Ann Avg Percent Change | Food and Beverage |
|---|---|---|---|---|---|---|---|---|---|
| 1960 | 34.4 | | | | | | | | |
| 1961 | 34.5 | 0.3 | | | | | | | |
| 1962 | 34.7 | 0.6 | | | | | | | |
| 1963 | 34.8 | 0.3 | | | | | | | |
| 1964 | 35.0 | 0.6 | | | | | | | |
| 1965 | 35.3 | 0.9 | | | | | | | |
| 1966 | 36.3 | 2.8 | | | | | | | |
| 1967 | 37.2 | 2.5 | | | | | | | |
| 1968 | 38.1 | 2.4 | | | | | | | |
| 1969 | 39.6 | 3.9 | | | | | | | |
| 1970 | 41.1 | 3.8 | | | | | | | |
| 1971 | 42.3 | 2.9 | | | 56.5 | | | | |
| 1972 | 43.4 | 2.6 | | | 58.3 | 3.2 | | | |
| 1973 | 45.3 | 4.4 | | | 60.7 | 4.1 | | | |
| 1974 | 50.2 | 10.8 | | | 64.7 | 6.6 | | | |
| 1975 | 57.1 | 13.7 | | | 69.8 | 7.9 | | | |
| 1976 | 61.5 | 7.7 | 62.1 | | 74.1 | 6.2 | 64.4 | | 64.2 |
| 1977 | 65.6 | 6.7 | 66.6 | 7.2 | 79.2 | 6.9 | 69.4 | 7.8 | 68.9 |
| 1978 | 70.2 | 7.0 | 71.0 | 6.6 | 79.7 | 0.6 | 72.6 | 4.6 | 75.9 |
| 1979 | 77.6 | 10.5 | 77.0 | 8.5 | 81.7 | 2.5 | 74.5 | 2.6 | 84.0 |
| 1980 | 85.5 | 10.2 | 84.7 | 10.0 | 89.7 | 9.8 | 79.0 | 6.0 | 89.7 |
| 1981 | 92.4 | 8.1 | 92.0 | 8.6 | 94.1 | 4.9 | 85.9 | 8.7 | 94.3 |
| 1982 | 97.4 | 5.4 | 96.3 | 4.7 | 96.6 | 2.7 | 94.7 | 10.2 | 97.2 |
| 1983 | 99.2 | 1.8 | 99.9 | 3.7 | 101.6 | 5.2 | 100.6 | 6.2 | 99.7 |
| 1984 | 103.3 | 4.1 | 103.8 | 3.9 | 101.7 | 0.1 | 104.6 | 4.0 | 103.2 |
| 1985 | 105.8 | 2.4 | 107.5 | 3.6 | 105.8 | 4.0 | 108.9 | 4.1 | 106.2 |
| 1986 | 107.8 | 1.9 | 111.2 | 3.4 | 109.0 | 3.0 | 112.4 | 3.2 | 110.8 |
| 1987 | 108.2 | 0.4 | 115.1 | 3.5 | 116.6 | 7.0 | 116.4 | 3.6 | 113.1 |

**Historical data for each CPI series published by the Bureau of Labor Statistics on the new base are available through the Alaska Department of Labor, Research and Analysis or the BLS.**

## Table 2
## Consumer Price Indexes for All Urban Consumers (continued)
### CPI-U
### 1982-84=100

| Ann Avg Percent Change | Housing | Ann Avg Percent Change | Medical Care | Ann Avg Percent Change | Other Goods & Services | Ann Avg Percent Change | Transportation | Ann Avg Percent Change |
|---|---|---|---|---|---|---|---|---|
| | | | 35.2 | | | | 40.8 | |
| | | | 35.8 | 1.7 | | | 40.9 | 0.2 |
| | | | 37.3 | 4.2 | | | 41.4 | 1.2 |
| | | | 41.5 | 11.3 | | | 44.9 | 8.5 |
| | | | 46.9 | 13.0 | | | 49.3 | 9.8 |
| | 62.6 | | 52.6 | 12.2 | 63.8 | | 54.9 | 11.4 |
| 7.3 | 65.5 | 4.6 | 57.9 | 10.1 | 68.1 | 6.7 | 60.2 | 9.7 |
| 10.2 | 69.7 | 6.4 | 63.4 | 9.5 | 71.7 | 5.3 | 64.5 | 7.1 |
| 10.7 | 78.0 | 11.9 | 69.1 | 9.0 | 76.9 | 7.3 | 71.3 | 10.5 |
| 6.8 | 85.9 | 10.1 | 78.8 | 14.0 | 83.1 | 8.1 | 82.2 | 15.3 |
| 5.1 | 92.5 | 7.7 | 86.9 | 10.3 | 88.1 | 6.0 | 92.7 | 12.8 |
| 3.1 | 98.2 | 6.2 | 94.8 | 9.1 | 93.2 | 5.8 | 96.8 | 4.4 |
| 2.6 | 99.0 | 0.8 | 99.7 | 5.2 | 101.5 | 8.9 | 98.5 | 1.8 |
| 3.5 | 102.7 | 3.7 | 105.5 | 5.8 | 105.3 | 3.7 | 104.6 | 6.2 |
| 2.9 | 103.0 | 0.3 | 110.9 | 5.1 | 114.2 | 8.5 | 108.2 | 3.4 |
| 4.3 | 102.6 | -0.4 | 127.8 | 15.2 | 123.2 | 7.9 | 107.8 | -0.4 |
| 2.1 | 97.5 | -5.0 | 137.0 | 7.2 | 132.2 | 7.3 | 111.3 | 3.2 |

Table 2 and Table 3 (page 14) contain annual average CPI's for Anchorage on the new base. Table 2 contains the All Items CPI-U (All Urban Consumers) for Anchorage and six component indexes. A special index, the All Items less Shelter, is also included. Table 3 contains the same group of indexes as Table 2, however, they are for the CPI-W (Urban Wage Earners and Clerical Workers). The CPI-U approximates the buying habits of 80% of the civilian noninstitutionalized population. The CPI-W approximates the buying habits of 40% of the civilian noninstitutionalized population. The CPI-U was first produced in 1978, previous to that only the CPI-W was available.

### Table 3
### Consumer Price Indexes for Urban Wage Earners and Clerical Workers
### CPI-W
### 1982-84 = 100

| Year | All Items | Ann Avg Percent Change | All Items Less Shelter | Ann Avg Percent Change | Apparel and Upkeep | Ann Avg Percent Change | Entertainment | Ann Avg Percent Change | Food and Beverage |
|---|---|---|---|---|---|---|---|---|---|
| 1960 | 35.2 | | | | | | | | |
| 1961 | 35.4 | 0.6 | | | | | | | |
| 1962 | 35.5 | 0.3 | | | | | | | |
| 1963 | 35.7 | 0.6 | | | | | | | |
| 1964 | 35.9 | 0.6 | | | | | | | |
| 1965 | 36.2 | 0.8 | | | | | | | |
| 1966 | 37.2 | 2.8 | | | | | | | |
| 1967 | 38.2 | 2.7 | | | | | | | |
| 1968 | 39.1 | 2.4 | | | | | | | |
| 1969 | 40.7 | 4.1 | | | | | | | |
| 1970 | 42.1 | 3.4 | | | | | | | |
| 1971 | 43.4 | 3.1 | | | 57.1 | | | | |
| 1972 | 44.5 | 2.5 | | | 58.9 | 3.2 | | | |
| 1973 | 46.4 | 4.3 | | | 61.4 | 4.2 | | | |
| 1974 | 51.4 | 10.8 | | | 65.4 | 6.5 | | | |
| 1975 | 58.5 | 13.8 | | | 70.5 | 7.8 | | | |
| 1976 | 63.1 | 7.9 | 62.6 | | 74.9 | 6.2 | 70.5 | | 64.5 |
| 1977 | 67.2 | 6.5 | 67.3 | 7.5 | 80.0 | 6.8 | 76.0 | 7.8 | 69.3 |
| 1978 | 72.0 | 7.1 | 71.9 | 6.8 | 80.3 | 0.4 | 76.0 | 0.0 | 76.9 |
| 1979 | 79.0 | 9.7 | 78.2 | 8.8 | 81.6 | 1.6 | 77.0 | 1.3 | 86.1 |
| 1980 | 86.3 | 9.2 | 85.2 | 9.0 | 86.5 | 6.0 | 79.9 | 3.8 | 90.3 |
| 1981 | 92.9 | 7.6 | 92.2 | 8.2 | 92.6 | 7.1 | 86.2 | 7.9 | 94.2 |
| 1982 | 98.2 | 5.7 | 96.4 | 4.6 | 96.3 | 4.0 | 94.6 | 9.7 | 97.2 |
| 1983 | 98.9 | 0.7 | 99.8 | 3.5 | 101.6 | 5.5 | 100.5 | 6.2 | 99.7 |
| 1984 | 102.9 | 4.0 | 103.8 | 4.0 | 102.1 | 0.5 | 105.0 | 4.5 | 103.2 |
| 1985 | 105.8 | 2.8 | 107.3 | 3.4 | 105.5 | 3.3 | 108.7 | 3.5 | 106.2 |
| 1986 | 107.7 | 1.8 | 110.8 | 3.3 | 108.1 | 2.5 | 112.5 | 3.5 | 110.9 |
| 1987 | 107.9 | 0.2 | 114.4 | 3.2 | 115.9 | 7.2 | 118.1 | 5.0 | 113.2 |

# Alaska's Employment Scene

**By Brian N. Rae**

April employment figures show typical seasonal growth patterns, with an increase of 4,000 in employment over-the-month. For several months total employment has been near that of last year. April's preliminary employment estimate is slightly below last April's. The mere fact, however, that another month has passed and showed normal seasonal growth strengthens arguments that the recession is behind us.

Certain sectors of the economy helped ameliorate the effects of the decline in oil prices. As noted in prior months, strength in the timber and fishing industries played a major role in stabilizing the economy over the past two years. Because of their current strength, there is little room for improvement in these industries without major changes in markets or legislation. Although these are possible, few are willing to bet on them. Other sectors' economic health paralleled world oil prices, with recent precipitous declines. Most of these industries have begun to recover. Their future depends on many factors, only a few of which have been decided. Overall, every indicator shows a strengthening and improving economy. The extent of these gains are dependent to a large degree on unresolved issues.

## Table 3
## Consumer Price Indexes for Urban Wage Earners and Clerical Workers (continued)
## CPI-W
## 1982-84 = 100

| Ann Avg Percent Change | Housing | Ann Avg Percent Change | Medical Care | Ann Avg Percent Change | Other Goods & Services | Ann Avg Percent Change | Transportation | Ann Avg Percent Change |
|---|---|---|---|---|---|---|---|---|
| | | | 36.2 | | | | 40.4 | |
| | | | 36.9 | 1.9 | | | 40.5 | 0.2 |
| | | | 38.4 | 4.1 | | | 41.0 | 1.2 |
| | | | 42.7 | 11.2 | | | 44.4 | 8.3 |
| | | | 49.3 | 15.5 | | | 48.8 | 9.9 |
| | 65.7 | | 54.1 | 9.7 | 62.6 | | 54.3 | 11.3 |
| 7.4 | 68.8 | 4.7 | 59.7 | 10.4 | 66.9 | 6.9 | 59.6 | 9.8 |
| 11.0 | 73.0 | 6.1 | 67.1 | 12.4 | 70.1 | 4.8 | 64.1 | 7.6 |
| 12.0 | 80.5 | 10.3 | 72.8 | 8.5 | 75.0 | 7.0 | 71.2 | 11.1 |
| 4.9 | 87.6 | 8.8 | 79.3 | 8.9 | 81.9 | 9.2 | 82.9 | 16.4 |
| 4.3 | 93.9 | 7.2 | 86.8 | 9.5 | 86.4 | 5.5 | 93.4 | 12.7 |
| 3.2 | 100.1 | 6.6 | 94.9 | 9.3 | 92.4 | 6.9 | 97.3 | 4.2 |
| 2.6 | 98.2 | -1.9 | 99.8 | 5.2 | 101.9 | 10.3 | 98.4 | 1.1 |
| 3.5 | 101.6 | 3.5 | 105.3 | 5.5 | 105.7 | 3.7 | 104.3 | 6.0 |
| 2.9 | 103.4 | 1.8 | 110.5 | 4.9 | 114.1 | 7.9 | 107.6 | 3.2 |
| 4.4 | 103.1 | -0.3 | 125.3 | 13.4 | 123.2 | 8.0 | 106.5 | -1.0 |
| 2.1 | 97.8 | -5.1 | 133.6 | 6.6 | 131.1 | 6.4 | 109.5 | 2.8 |

### Issues — And Some Answers

Several unresolved issues could impact the state's economy. One item of critical importance to the Alaskan economy is the number of Alaskans employed. Increasing the number of jobs in an area generally increases the number of residents employed. This holds true in the Alaskan economy, but data shows that the ratios of jobs and unemployment benefits going to nonresidents is quite high in Alaska. In 1986, the state sent over 22% of regular unemployment benefit payments outside of Alaska. Nationally, 5.2% of these benefits are sent to states outside of the one paying the benefits.

One method to increase resident employment is to increase the ratio of resident to nonresident employees. Given a fixed number of jobs, increasing the ratio of resident to nonresident employees can have much the same effect as real employment increases to Alaskans. For several years, the state has tried to legislate resident hire for public projects. This legislative session, initiatives to amend the bidders' preference law and the state constitution to strengthen resident hire laws were not acted upon. A bill recently passed lets the Department of Labor release resident hiring records for certain firms. The state has also appealed a decision declaring a previous resident hire law unconstitutional. Over the next several years the cumulative effects of all these efforts is intended to improve the proportion of residents in Alaska's workforce.

### Table 1
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Alaska

| | p/ 4/88 | r/ 3/88 | 4/87 | Changes From: 3/88 | 4/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 204,600 | 200,600 | 205,500 | 4,000 | -900 |
| Mining | 9,000 | 8,600 | 8,300 | 400 | 700 |
| Construction | 8,300 | 7,500 | 9,200 | 800 | -900 |
| Manufacturing | 12,900 | 12,000 | 11,700 | 900 | 1,200 |
| Seafood Processing | 6,700 | 6,000 | 5,700 | 700 | 1,000 |
| Lumber & Paper Prod. | 3,100 | 3,000 | 2,900 | 100 | 200 |
| All Other Manufacturing | 3,100 | 3,000 | 3,100 | 100 | 0 |
| Transportation | 16,900 | 16,800 | 16,700 | 100 | 200 |
| Trucking & Warehousing | 2,400 | 2,400 | 2,200 | 0 | 200 |
| Water Transportation | 900 | 1,000 | 900 | -100 | 0 |
| Air Transportation | 5,200 | 5,100 | 5,000 | 100 | 200 |
| All Other Transportation | 8,400 | 8,300 | 8,600 | 100 | -200 |
| Trade | 39,500 | 38,600 | 39,200 | 900 | 300 |
| Wholesale | 7,200 | 7,100 | 7,200 | 100 | 0 |
| Retail | 32,300 | 31,500 | 32,000 | 800 | 300 |
| Gen.Mer.& Apparel | 4,600 | 4,500 | 4,400 | 100 | 200 |
| Food Stores | 5,800 | 5,700 | 5,600 | 100 | 200 |
| Eating & Drinking Pl. | 11,600 | 11,100 | 11,800 | 500 | -200 |
| All Other Retail | 10,300 | 10,200 | 10,200 | 100 | 100 |
| Finance-Ins. & R.E. | 10,600 | 10,600 | 11,300 | 0 | -700 |
| Services | 40,300 | 39,700 | 41,600 | 600 | -1,300 |
| Government | 67,100 | 66,800 | 67,500 | 300 | -400 |
| Federal | 17,300 | 17,300 | 17,600 | 0 | -300 |
| State | 19,800 | 19,500 | 19,500 | 300 | 300 |
| Local | 30,000 | 30,000 | 30,400 | 0 | -400 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1987.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

In other legislative action, this time at the federal level, funding for the construction of backscatter radar facilities in Alaska has been delayed. Technical and environmental concerns prompted the delay, and the project will almost certainly begin by 1990. This project would have offered a boost to the construction industry, one of the sectors hardest hit in the recession.

Other scheduled projects will provide some relief to the ailing construction industry. The Bradley Lake hydro project is progressing. Because of a judicial stay, the latest resident hire guidelines will be in effect during the initial stages of this project. In addition, the contract allows for incentives of up to $1 million for subcontracting firms owned by minorities or women. ENSERCH Alaska submitted the low bid at $91 million, some $8 million below the next bidder. If the bid meets state guidelines, the contract could be awarded in June. This project should provide needed jobs to Kenai Borough and other southcentral Alaska residents.

On the North Slope, Standard Alaska Petroleum Company will begin development of the Niakuk oil field. A small field, Niakuk contains only one seventy-fifth the reserves of Prudhoe Bay. In spite of limited reserves, the project will add $14 million to the North Slope Borough's tax base and create 200 construction jobs through 1990. After production begins, 35 positions will be needed.

Other potential boosts include the home porting of U.S. Navy vessels, the Mat-Su plywood plant, and benefits of the Governor's science foundation. Noted economist Dr. Lester Thurow had high praise for the foundation, saying projects such as this attract investment from outside the state, create jobs and promote economic growth. Thurow advised the legislature against passing any bail out initiatives. He asserted that shoring up failed business ventures imposes high costs and little return on investment.

As of this writing, the fate of the new Anchorage court building is undecided. Uncertainty centers around the size of the facility, since its construction is almost assured. Construction of the currently planned facility will increase construction employment significantly. Even a scaled down version will give a significant boost to the industry.

A major "no-go" is the manufacturing of large oil field modules in Alaska. ARCO dampened the hopes of several firms, particularly VECO, when it announced that no large modules would be produced in the state. Citing extreme weather, less than ideal port location and facilities, and pay differentials, ARCO deemed large module construction in the state as too costly. The firm still sees as a potential the construction of smaller, truckable modules in the state. Production facilities would probably be located in Mat-Su or Fairbanks.

ARCO's announcement jeopardizes large scale expansion of Anchorage port facilities. Anchorage assembly members, seeing more pressing needs within the municipality, placed the port funds far down on their list of priorities.

## Table 2
# Nonagricultural Wage and Salary Employment By Place of Work

## Anchorage

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 4/88 | 3/88 | 4/87 | 3/88 | 4/87 |
| Nonag. Wage & Salary | 97,500 | 96,100 | 100,350 | 1,400 | -2,850 |
| Mining | 3,500 | 3,400 | 3,300 | 100 | 200 |
| Construction | 4,250 | 3,900 | 4,850 | 350 | -600 |
| Manufacturing | 2,150 | 1,900 | 2,200 | 250 | -50 |
| Transportation | 8,850 | 8,750 | 9,000 | 100 | -150 |
| Trucking & Warehousing | 1,350 | 1,350 | 1,450 | 0 | -100 |
| Water Transportation | 250 | 250 | 300 | 0 | -50 |
| Air Transportation | 3,050 | 3,000 | 3,050 | 50 | 0 |
| All Other Transportation | 4,200 | 4,150 | 4,200 | 50 | 0 |
| Trade | 22,600 | 22,250 | 22,600 | 350 | 0 |
| Wholesale | 5,250 | 5,100 | 5,450 | 150 | -200 |
| Retail | 17,350 | 17,150 | 17,150 | 200 | 200 |
| Gen.Merch. & Apparel | 2,250 | 2,200 | 2,200 | 50 | 50 |
| Food Stores | 2,900 | 2,900 | 2,750 | 0 | 150 |
| Eating & Drinking Pl. | 6,700 | 6,600 | 6,700 | 100 | 0 |
| All Other Retail | 5,500 | 5,450 | 5,500 | 50 | 0 |
| Finance-Ins. & R.E. | 7,050 | 7,050 | 7,600 | 0 | -550 |
| Services | 23,200 | 22,750 | 24,050 | 450 | -850 |
| Government | 25,900 | 26,100 | 26,750 | -200 | -850 |
| Federal | 10,250 | 10,400 | 10,200 | -150 | 50 |
| State | 7,000 | 7,000 | 7,000 | 0 | 0 |
| Local | 8,650 | 8,700 | 9,550 | -50 | -900 |

## Fairbanks

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 4/88 | 3/88 | 4/87 | 3/88 | 4/87 |
| Nonag. Wage & Salary | 24,700 | 24,100 | 25,000 | 600 | -300 |
| Mining | 50 | 50 | 150 | 0 | -100 |
| Construction | 1,250 | 1,150 | 1,250 | 100 | 0 |
| Manufacturing | 500 | 500 | 500 | 0 | 0 |
| Transportation | 2,000 | 2,000 | 2,050 | 0 | -50 |
| Trucking & Warehousing | 350 | 350 | 350 | 0 | 0 |
| Air Transportation | 350 | 300 | 300 | 50 | 50 |
| All Other Transportation | 1,300 | 1,350 | 1,400 | -50 | -100 |
| Trade | 5,350 | 5,050 | 5,200 | 300 | 150 |
| Wholesale | 700 | 700 | 750 | 0 | -50 |
| Retail | 4,650 | 4,350 | 4,450 | 300 | 200 |
| Food Stores | 750 | 750 | 700 | 0 | 50 |
| All Other Retail | 3,900 | 3,600 | 3,750 | 300 | 150 |
| Finance-Ins. & R.E. | 850 | 850 | 900 | 0 | -50 |
| Services | 5,300 | 5,300 | 5,400 | 0 | -100 |
| Government | 9,400 | 9,200 | 9,550 | 200 | -150 |
| Federal | 2,750 | 2,650 | 2,850 | 100 | -100 |
| State | 4,050 | 4,000 | 3,950 | 50 | 100 |
| Local | 2,600 | 2,550 | 2,750 | 50 | -150 |

## Anchorage-MatSu

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 4/88 | 3/88 | 4/87 | 3/88 | 4/87 |
| Nonag. Wage & Salary | 103,500 | 102,200 | 106,750 | 1,300 | -3,250 |
| Mining | 3,550 | 3,400 | 3,300 | 150 | 250 |
| Construction | 4,400 | 4,100 | 5,100 | 300 | -700 |
| Manufacturing | 2,250 | 2,000 | 2,300 | 250 | -50 |
| Transportation | 9,450 | 9,350 | 9,700 | 100 | -250 |
| Trade | 24,100 | 23,700 | 24,150 | 400 | -50 |
| Finance-Ins. & R.E. | 7,450 | 7,450 | 8,050 | 0 | -600 |
| Services | 24,100 | 23,900 | 25,050 | 200 | -950 |
| Government | 28,200 | 28,300 | 29,100 | -100 | -900 |

## Interior

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 4/88 | 3/88 | 4/87 | 3/88 | 4/87 |
| Nonag. Wage & Salary | 28,300 | 27,550 | 28,750 | 750 | -450 |
| Mining | 200 | 150 | 250 | 50 | -50 |
| Construction | 1,300 | 1,200 | 1,400 | 100 | -100 |
| Manufacturing | 500 | 500 | 500 | 0 | 0 |
| Transportation | 2,250 | 2,250 | 2,400 | 0 | -150 |
| Trade | 5,750 | 5,400 | 5,500 | 350 | 250 |
| Finance-Ins. & R.E. | 900 | 950 | 950 | -50 | -50 |
| Services | 5,650 | 5,600 | 5,900 | 50 | -250 |
| Government | 11,750 | 11,500 | 11,850 | 250 | -100 |

## Gulf Coast

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 4/88 | 3/88 | 4/87 | 3/88 | 4/87 |
| Nonag. Wage & Salary | 18,700 | 18,200 | 18,350 | 500 | 350 |
| Mining | 750 | 750 | 700 | 0 | 50 |
| Construction | 800 | 700 | 850 | 100 | -50 |
| Manufacturing | 3,300 | 3,200 | 3,100 | 100 | 200 |
| Seafood Processing | 2,700 | 2,600 | 2,500 | 100 | 200 |
| All Other Manufacturing | 600 | 600 | 600 | 0 | 0 |
| Transportation | 1,200 | 1,250 | 1,250 | -50 | -50 |
| Trade | 3,400 | 3,250 | 3,350 | 150 | 50 |
| Wholesale | 400 | 400 | 500 | 0 | -100 |
| Retail | 3,000 | 2,850 | 2,850 | 150 | 150 |
| Finance-Ins. & R.E. | 550 | 600 | 550 | -50 | 0 |
| Services | 3,100 | 2,950 | 3,100 | 150 | 0 |
| Government | 5,600 | 5,500 | 5,450 | 100 | 150 |
| Federal | 500 | 500 | 500 | 0 | 0 |
| State | 1,600 | 1,550 | 1,550 | 50 | 50 |
| Local | 3,500 | 3,450 | 3,400 | 50 | 100 |

## Southeast Alaska

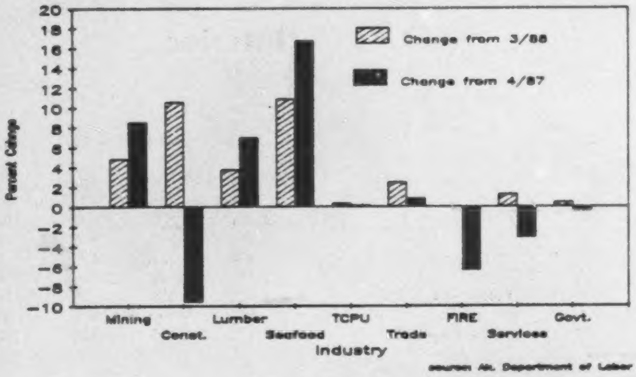
| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 4/88 | 3/88 | 4/87 | 3/88 | 4/87 |
| Nonag. Wage & Salary | 28,050 | 27,250 | 28,050 | 800 | 0 |
| Construction | 900 | 800 | 1,050 | 100 | -150 |
| Manufacturing | 4,000 | 3,700 | 3,800 | 300 | 200 |
| Seafood Processing | 800 | 700 | 800 | 100 | 0 |
| Lumber & Paper Prod. | 3,000 | 2,800 | 2,800 | 200 | 200 |
| All Other Manufacturing | 200 | 200 | 200 | 0 | 0 |
| Transportation | 1,950 | 1,900 | 1,900 | 50 | 50 |
| Trade | 4,250 | 4,250 | 4,300 | 0 | -50 |
| Wholesale | 400 | 400 | 400 | 0 | 0 |
| Retail | 3,850 | 3,850 | 3,900 | 0 | -50 |
| Finance-Ins. R.E. | 1,100 | 1,050 | 1,050 | 50 | 50 |
| Services | 4,500 | 4,350 | 4,550 | 150 | -50 |
| Government | 11,200 | 11,050 | 11,350 | 150 | -150 |
| Federal | 1,800 | 1,750 | 1,900 | 50 | -100 |
| State | 5,200 | 5,100 | 5,150 | 100 | 50 |
| Local | 4,200 | 4,200 | 4,300 | 0 | -100 |

## Employment Trends

The biggest news in Alaska's employment scene was a lower than usual unemployment rate (Table 4). For the first time since 1981, April unemployment dropped below 10%. April's rate of 9.9% represents just 24,000 persons unemployed. While above the national average of 5.8%, this is much better than last April when almost 31,000 persons were without a job. Over-the-year unemployment rates were lower in every economic region—only three census areas experienced higher unemployment rates over-the-year.

Over-the-month employment increases were mainly in the **trade, manufacturing** and **construction** industries (Table 1 and Figure 1). With the approaching tourism season, many retailers are increasing their work force and their hours. **Seafood processing** employment gains were the major factor in manufacturing employment increases. These gains were accompanied by a large decline in the number of hours worked in seafood processing (Table 3). Data show that many smaller processors, shut down during the winter, are again reopening. Large canneries, predominantly in Kodiak, have decreased their hours dramatically, and have laid off workers over-the-month. These concurrent events caused average hours to fall almost 15 hours per week in this industry.

Figure 1
Employment Change by Industry
Prior Month and Year Ago Change in Percent



source: Ak. Department of Labor

The **construction** industry showed expected growth over-the-month, but even with 800 additional jobs since March, employment is still nearly 10% below last year's level. Figure 1 compares nine industries' employment changes, both over-the-month and over-the-year. Because monthly industry employment levels depend on so many factors, these comparisons do not necessarily reflect the overall health of the industry or project its performance in future months. For example, in the **seafood processing** industry, large employment gains over-the-year are primarily a result of a strong winter season. During the peak months, employment is expected to be much closer to year ago levels. Given these caveats, it is encouraging to note the number of industries that have experienced employment growth over-the-year.

**Mining** employment, weekly hours and earnings increased both over-the-month and over-the-year with several new projects underway. Adding to the impacts of Green's Creek, Red Dog, and the Bima in Nome is a renewed confidence in the oil market. OPEC has approached other oil producing nations, hoping to win their cooperation in shoring up world prices. Standard Alaska, after announcing two sharp price increases, lowered the price of North Slope crude during the first week of May. To add stability to the market, Standard Alaska plans to announce its contract price on the first of each month. The price will reflect the prior month's average spot market price.

The findings of exploration wells in ANWR are still confidential, which seems to fuel the desires of many to open the refuge to drilling. Congress has approved a measure giving Alaska 50% royalties, less than the 90% the state wanted. The state will, however, be able to export some of its royalty oil to other countries directly. At present, all oil must be shipped to, or exchanged for foreign oil being shipped to, the lower 48.

Employment in the **lumber and paper products** industry increased by 200

## Table 3
## Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 4/88 | R/ 3/88 | 4/87 | P/ 4/88 | R/ 3/88 | 4/87 | P/ 4/88 | R/ 3/88 | 4/87 |
| Mining | $1,240.03 | $1,136.80 | $1,156.76 | 50.8 | 49.0 | 48.4 | $24.41 | $23.20 | $23.90 |
| Construction | 1,012.60 | 927.84 | 950.02 | 41.5 | 39.1 | 39.7 | 24.40 | 23.73 | 23.93 |
| Manufacturing | 450.18 | 503.53 | 541.08 | 35.7 | 43.9 | 43.6 | 12.61 | 11.47 | 12.41 |
| Seafood Processing | 265.98 | 363.17 | 366.08 | 31.0 | 46.8 | 44.0 | 8.58 | 7.76 | 8.32 |
| Lumber & Paper Prod | 629.00 | 656.92 | 670.77 | 42.5 | 42.3 | 43.5 | 14.80 | 15.53 | 15.42 |
| Trans., Comm. & Util. | 582.61 | 551.55 | 565.44 | 36.3 | 33.9 | 36.2 | 16.05 | 16.27 | 15.62 |
| Trade | 370.51 | 351.62 | 384.75 | 33.5 | 32.2 | 34.2 | 11.06 | 10.92 | 11.25 |
| Wholesale | 526.89 | 518.00 | 535.22 | 39.0 | 37.7 | 38.7 | 13.51 | 13.74 | 13.83 |
| Retail | 314.68 | 294.21 | 332.19 | 31.5 | 30.3 | 32.6 | 9.99 | 9.71 | 10.19 |
| Finance-Ins. & R.E | 394.05 | 380.56 | 389.99 | 35.5 | 33.5 | 34.3 | 11.10 | 11.36 | 11.37 |

Benchmark March 1987

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

over-the-year. Over-the-month employment increased by over 100. Average weekly hours increased only slightly, a good sign since March hours were unusually high because of a maintenance shutdown at the Ketchikan pulp mill. The industry outlook is quite good, with mill expansions now underway. Continued uncertainty over the future of the Tongass is one of the few negative aspects for the industry.

One of the industries hardest hit by the recession, **finance-insurance and real estate**, held employment levels steady over-the-month. This is the first time this year that this sector's employment has not fallen. At the same time, average weekly hours increased significantly.

### Regional Trends

The **Southwest** region holds the dubious distinction as being the only region where unemployment increased over-the-month. This might not prove to be such bad news. According to area Job Service offices, increased unemployment in April is a precursor to increased employment. Many of the workers in these areas are seasonal, migrating into the area shortly before jobs are available, and increasing the unemployment rate. All census areas in Southwest show increased total employment and labor force over-the-month. Both seafood processing and government employment posted strong gains over-the-year in Southwest.

**Gulf Coast** unemployment rates were down over-the-month. The Kenai Peninsula borough's unemployment rate, though it dropped over 2%, is still at 14.8%. At the other extreme, Kodiak Island borough saw unemployment increase from 5.3% to 9.1%, mainly caused by reductions in seafood processing facilities. Those still employed were working significantly less hours than in March. These reductions come after extremely high employment over the past several months, so that the industry has still experienced an over-the-year gain. Both the trade and service sectors showed strong over-the-month growth to help compensate for these losses.

The **Anchorage/MatSu** region saw both its labor force decrease and its employment increase. Combined, the unemployment rate for the region fell to 8.7%. Total employment is still down over-the-year by over 3,000, with losses in every sector except mining.

Construction, services and government continue to fall below year ago employment levels in **Southeast**. Construction's over-the-month movement was strong, primarily because of public funded construction and private sector projects like the Green's Creek mine. No sector showed monthly employment declines. Seafood processing continued to increase into early April, though many plants have reduced operations until the end of May when halibut will be in season. Southeast posted the lowest unemployment rate in the state at 8%, but also had the widest spread in unemployment rates for its census areas. The Sitka and Juneau boroughs had some of the lowest unemployment levels in the state, at 4.7% and 5.6%, respectively. The Skagway-Yakutat-Angoon census area had a 20.5% unemployment rate.

The **Interior** region shows most industries' employment down over-the-year. Trade is the only industry in the region to post an over-the-year employment gain, increasing 3.8% since April 1987. In number of jobs, services has been the biggest over-the-year loser. Coincidentally, it lost 3.8% and, having roughly the same employment as trade, the two industries have negated each other's relative movements. Over-the-month, government and trade added the greatest employment boost.

## Conclusion

Over the past several months, employment levels have edged ever closer to those of a year ago. Employment figures for March are very close to those of a year ago. By most expectations, employment would equal the previous year's sometime between April and mid-summer. April employment figures were not as encouraging as March's, but two important points can be made form them when assessing the state's economic health.

April employment levels seem to point out that, during the first quarter of 1988, certain sectors of the economy experienced unseasonably high growth. These heated sectors were accompanied by recovery throughout the Alaska economy and were crucial in pushing employment close to year ago levels. April may mark the end of unseasonably high employment levels for certain industries. It may take longer for employment levels to reach those of a year ago than the past several months have indicated.

Current employment figures also make a positive point. Though wage and salary employment is still less than a year ago, so too is the unemployment rate. Not since 1981 has Alaska's unemployment rate been lower during April. Provisional population projections show the state going through a period of labor force decline. For those people remaining in the state, most indicators show them to be better off than they were last year. When employment figures equal those of a year ago, most residents of the state will be better off than they were the previous year.

# Table 4
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 4/88 | R/ 3/88 | 4/87 | P/ 4/88 | R/ 3/88 | 4/87 | P/ 4/88 | R/ 3/88 | 4/87 | P/ 4/88 | R/ 3/88 | 4/87 |
| Alaska Statewide ....... | 242,725 | 241,792 | 246,660 | 23,992 | 26,027 | 30,722 | 9.9 | 10.8 | 12.5 | 218,733 | 215,765 | 215,938 |
| Anch.-MatSu Region .... | 126,647 | 126,886 | 131,250 | 11,018 | 11,888 | 14,569 | 8.7 | 9.4 | 11.1 | 115,629 | 114,998 | 116,681 |
| Anchorage Borough .... | 112,467 | 112,121 | 115,571 | 8,671 | 9,147 | 11,304 | 7.7 | 8.2 | 9.8 | 103,796 | 102,974 | 104,267 |
| MatSu Borough ....... | 14,180 | 14,765 | 15,679 | 2,347 | 2,741 | 3,265 | 16.6 | 18.6 | 20.8 | 11,833 | 12,024 | 12,414 |
| Gulf Coast Region ...... | 26,431 | 26,213 | 26,000 | 3,515 | 3,805 | 4,210 | 13.3 | 14.5 | 16.2 | 22,916 | 22,408 | 21,790 |
| Kenai Peninsula Bor ... | 16,797 | 16,868 | 16,911 | 2,484 | 2,873 | 3,302 | 14.8 | 17.0 | 19.5 | 14,313 | 13,995 | 13,609 |
| Kodiak Island Bor ..... | 5,804 | 5,445 | 5,361 | 528 | 286 | 344 | 9.1 | 5.3 | 6.4 | 5,276 | 5,159 | 5,017 |
| Valdez-Cordova ........ | 3,830 | 3,900 | 3,728 | 503 | 646 | 564 | 13.1 | 16.6 | 15.1 | 3,327 | 3,254 | 3,164 |
| Interior Region ......... | 36,304 | 35,927 | 37,336 | 4,902 | 5,165 | 6,306 | 13.5 | 14.4 | 16.9 | 31,402 | 30,762 | 31,030 |
| Fairbanks North Star Br | 31,049 | 30,683 | 31,944 | 3,918 | 4,104 | 5,134 | 12.6 | 13.4 | 16.1 | 27,131 | 26,579 | 26,810 |
| Southeast Fairbanks ... | 2,183 | 2,201 | 2,231 | 351 | 407 | 421 | 16.1 | 18.5 | 18.9 | 1,832 | 1,794 | 1,810 |
| Yukon-Koyukuk ....... | 3,072 | 3,043 | 3,161 | 633 | 654 | 751 | 20.6 | 21.5 | 23.8 | 2,439 | 2,389 | 2,410 |
| Northern Region ....... | 8,229 | 8,152 | 8,009 | 813 | 817 | 983 | 9.9 | 10.0 | 12.3 | 7,416 | 7,335 | 7,026 |
| Nome ............... | 3,216 | 3,167 | 3,126 | 394 | 376 | 452 | 12.3 | 11.9 | 14.5 | 2,822 | 2,791 | 2,674 |
| North Slope Borough .. | 2,863 | 2,845 | 2,745 | 133 | 145 | 159 | 4.6 | 5.1 | 5.8 | 2,730 | 2,700 | 2,586 |
| Northwest Arctic Bor ... | 2,150 | 2,140 | 2,138 | 286 | 296 | 372 | 13.3 | 13.8 | 17.4 | 1,864 | 1,844 | 1,766 |
| Southeast Region ....... | 32,805 | 32,819 | 32,752 | 2,617 | 3,323 | 3,417 | 8.0 | 10.1 | 10.4 | 30,188 | 29,496 | 29,335 |
| Haines Borough ....... | 848 | 849 | 850 | 87 | 105 | 110 | 10.3 | 12.4 | 12.9 | 761 | 744 | 740 |
| Juneau Borough ...... | 14,263 | 14,051 | 14,206 | 802 | 900 | 1,127 | 5.6 | 6.4 | 7.9 | 13,461 | 13,151 | 13,079 |
| Ketchikan Gateway Br | 6,489 | 6,451 | 6,529 | 524 | 623 | 732 | 8.1 | 9.7 | 11.2 | 5,965 | 5,828 | 5,797 |
| Pr. of Wales-Outer Ktch | 2,526 | 2,523 | 2,501 | 363 | 409 | 399 | 14.4 | 16.2 | 16.0 | 2,163 | 2,114 | 2,102 |
| Sitka Borough ........ | 3,800 | 3,880 | 3,864 | 180 | 343 | 346 | 4.7 | 8.8 | 9.0 | 3,620 | 3,537 | 3,518 |
| Skagway-Yakutat-Angn | 1,681 | 1,751 | 1,553 | 345 | 445 | 254 | 20.5 | 25.4 | 16.4 | 1,336 | 1,306 | 1,299 |
| Wrangell-Petersburg .... | 3,198 | 3,314 | 3,249 | 316 | 498 | 449 | 9.9 | 15.0 | 13.8 | 2,882 | 2,816 | 2,800 |
| Southwest Region ...... | 12,309 | 11,795 | 11,313 | 1,127 | 1,029 | 1,237 | 9.2 | 8.7 | 10.9 | 11,182 | 10,766 | 10,076 |
| Aleutian Islands ....... | 3,343 | 3,234 | 3,041 | 123 | 134 | 139 | 3.7 | 4.1 | 4.6 | 3,220 | 3,100 | 2,902 |
| Bethel .............. | 4,773 | 4,551 | 4,404 | 483 | 421 | 538 | 10.1 | 9.3 | 12.2 | 4,290 | 4,130 | 3,866 |
| Bristol Bay Borough ... | 445 | 426 | 397 | 57 | 52 | 47 | 12.8 | 12.2 | 11.8 | 388 | 374 | 350 |
| Dillingham ........... | 2,190 | 2,106 | 2,056 | 192 | 182 | 256 | 8.8 | 8.6 | 12.5 | 1,998 | 1,924 | 1,800 |
| Wade Hampton ....... | 1,558 | 1,478 | 1,415 | 272 | 240 | 257 | 17.5 | 16.2 | 18.2 | 1,286 | 1,238 | 1,158 |

P/ Preliminary R/ Revised 1986 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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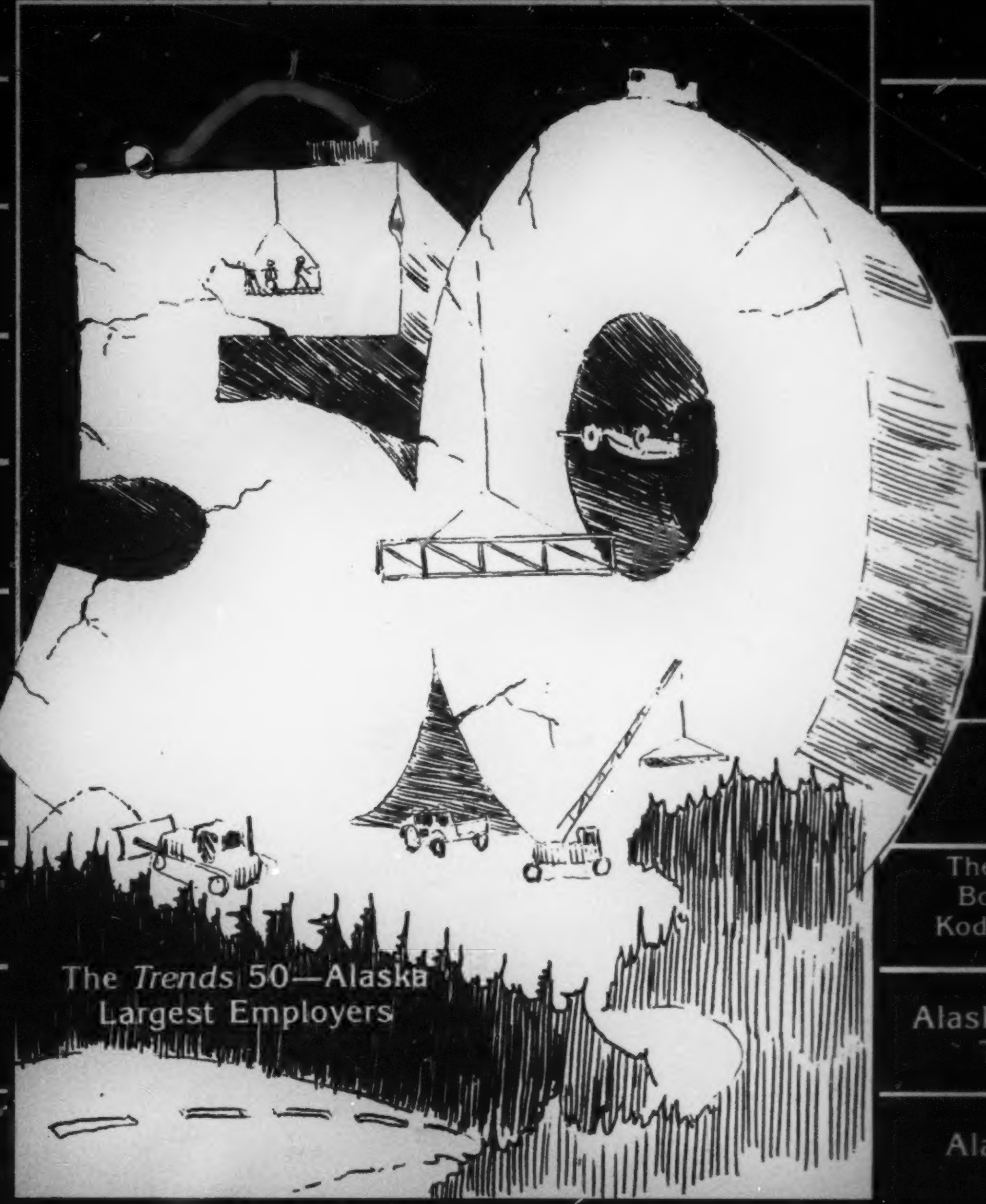

The *Trends* 50—Alaska Largest Employers

The Center of Alaska's Bottomfish Grounds; Kodiak and the Aleutian Islands

Alaska Wage Rates—Are They Declining?

Alaska's Employment Scene

# Alaska Economic Trends

*Steve Cowper*, Governor, State of Alaska

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**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

*Alaska Economic Trends* is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact John Boucher, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.

# The Trends 50—Alaska's Largest Employers

By Greg Huff

For the second year the Alaska Department of Labor and *Alaska Economic Trends* has produced a list of Alaska's largest private employers—the Trends 50.[1] These employers represent only a small percentage of private business establishments operating in Alaska (less than 2%), but their employment levels account for over one-fifth of all private sector jobs in Alaska and an even greater portion of wages and salaries. The Trends 50, though few in number, are a major force in the Alaskan economy.

In 1986, Alaska's 50 largest private employers ranged in size from 2,600 down to 300 employees and encompassed a variety of industries—from oil and gas production to private social service agencies. In total they employed 31,294 in 1986, 20.6% of total private employment (Figure 1). Including government employment, which totaled 66,680 in 1986, the Trends 50 represented a sizeable proportion of total statewide wage and salary employment (14.3%).

The Trends 50 paid a billion dollars in wages in 1986, 25% of all wages paid by private employers in the state. On average they tend to pay higher wages and salaries than other firms. The average monthly pay in 1986 for employees working for Trends 50 employers was $2,620 compared to the average private monthly pay of $2,230. (The average includes Trends 50 employers.)

Trends Top 50 employers tended to weather Alaska's economic downturn better, although several firms had significant employment declines. Six employers dropped out of the 1986 list. These include three construction firms, a retail establishment an airline and a bank. The new firms include two seafood processors, a hotel, a construction company, a company catering to the air transportation industry and one health care firm (see table 1, where * designates a new Trends 50 firm).

The highest debut in the Trends 50 was a seafood processor, International Seafoods of Alaska. They burst into the Trends 50 as the 23rd largest employer in the state. Brown & Root USA, Inc. was the second highest newcomer in 1986 at number 32.

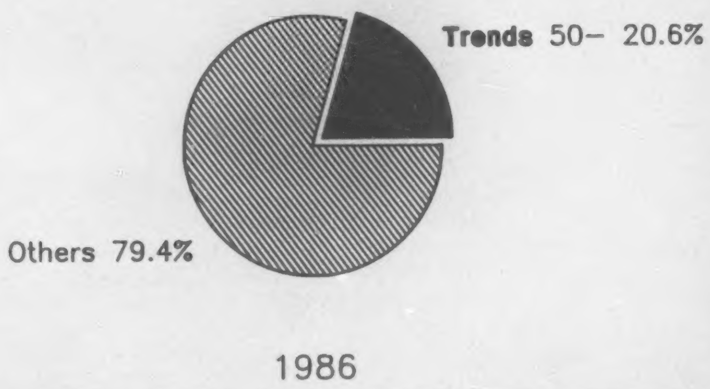
We would like to thank the employers for their cooperation and time in responding to our short survey. The survey enabled us to provide this information and we hope in the years to come that we may continue providing information about the Trends 50.

When examining the rankings in Table 1, the annual average data obscure seasonal fluctuations in employment levels. The seasonal fluctuations result in shifts in the ranking during the year. The primary examples are the seafood processing and construction industries. During the summer seafood processing employment levels peak and the rank of the processors climbs considerably, but their ranking falls as quickly when the peak season ends.

### Industry Breakout

Of the 31,294 jobs among Trends 50 employers in 1986, the trade industry had the largest number of jobs and construction the fewest. Trade also had the most firms on the list. These 14 firms represented over a quarter of total employment among Alaska's 1986 Trends 50. Illustrated in Figure 2 is the industry breakdown of

Figure 1
The Trends 50
Percent of Total Private Employment



## Table 1
## *Alaska Economic Trends*
## Top 50 Employers
## (based on 1986 average employment)

| 1986 Rank | 1985 Rank | Employment Firm | Employment 1986 | 1987/a | Industry | Area | Headquarters or Largest Site |
|---|---|---|---|---|---|---|---|
| 1 | 1 | Arco Alaska, Inc. | 2,609 | 2,661 | Oil & Gas Production | Statewide | Anchorage/Northern |
| 2 | 2 | Carr-Gottstein Inc.[1] | 2,248 | 2,209 | Retail-grocery | Statewide | Anchorage |
| 3 | 3 | Providence Hospital | 1,643 | 1,618 | Hospital | Anchorage | Anchorage |
| 4 | 4 | Standard Alaska Production Co. | 1,399 | 1,290 | Oil & Gas Production | Statewide | Anchorage/Northern |
| 5 | 5 | Lutheran Hospital & Homes Society[2] | 1,087 | 1,094 | Health Care | Statewide | Fairbanks |
| 6 | 7 | National Bank of Alaska | 920 | 806 | Banking | Statewide | Anchorage |
| 7 | 6 | Alascom Inc. | 914 | 874 | Telephone Communications | Statewide | Anchorage |
| 8 | 9 | Safeway Stores Inc. | 908 | 899 | Retail-grocery | Statewide | Anchorage |
| 9 | 11 | VECO Inc. | 893 | 805 | Oil Field Services | Statewide | Anchorage/Northern |
| 10 | 8 | Alyeska Pipeline Services Co. Inc. | 868 | 878 | Pipeline | Statewide | Anchorage |
| 11 | 10 | First National Bank of Anchorage | 768 | 703 | Banking | Statewide | Anchorage |
| 12 | 12 | Alaska Airlines Inc. | 755 | 734 | Air Carrier | Statewide | Anchorage |
| 13 | 15 | Alaska U.S.A. Federal Credit Union | 685 | 654 | Credit Union | Statewide | Anchorage |
| 14 | 22 | Ketchikan Pulp Co. | 670 | 723 | Pulp & Lumber Products | Statewide | Ketchikan |
| 15 | 17 | MarkAir | 651 | 628 | Air Carrier | Statewide | Anchorage |
| 16 | 14 | Humana Hospital Alaska Inc. | 628 | 618 | Hospital | Anchorage | Anchorage |
| 17 | 34 | All Alaskan Seafoods | 612 | 478 | Seafood Processing | Statewide | Kodiak |
| 18 | 13 | McDonalds [3] | 600 | 687 | Retail-eating establishments | Statewide | Anchorage |
| 19 | 16 | Icicle Seafoods Inc. | 583 | 508 | Seafood Processing | Statewide | Petersburg |
| 20 | 19 | Fred Meyer, Inc. | 531 | 517 | Retail-general merchandise | Statewide | Anchorage |
| 21 | 21 | Sears Roebuck and Co. | 524 | 447 | Retail-general merchandise | Statewide | Anchorage |
| 22 | 18 | Union Oil Co. of California | 515 | 469 | Oil & Gas | Statewide | Anchorage |
| 23 | * | International Seafoods of Alaska, Inc. | 488 | 438 | Seafood Processing | Statewide | Kodiak |
| 24 | 25 | Nordstrom Inc. | 463 | 445 | Retail-general merchandise | Statewide | Anchorage |
| 25 | 33 | Pay N Save [4] | 462 | 496 | Retail-general merchandise | Statewide | Anchorage |
| 26 | 26 | Anchorage Daily News | 451 | 396 | Newspaper | Anchorage | Anchorage |
| 27 | 20 | Spenard Builders Supply | 432 | 325 | Retail-building supplies | Statewide | Anchorage |
| 28 | 23 | Hotel Captain Cook | 426 | 378 | Hotel | Anchorage | Anchorage |
| 29 | 24 | J. C. Penney Co. | 421 | 405 | Retail-general merchandise | Statewide | Anchorage |
| 30 | 29 | Felec Services Inc. | 412 | 388 | Radar Station Operator | Statewide | Fairbanks |
| 31 | 30 | Alaska Commercial Co. | 408 | 349 | Retail-general merchandise | Statewide | Anchorage |
| 32 | * | Brown & Root USA, Inc. | 391 | 226 | Heavy Construction | Statewide | Anchorage/Northern |
| 33 | 40 | Lamonts Inc. | 390 | 345 | Retail-apparel | Statewide | Anchorage |
| 34 | 31 | Wilsyk Alaska Inc. | 390 | 405 | Personnel Supply Services | Statewide | Anchorage |
| 35 | 48 | Burger King[5] | 385 | 388 | Retail-eating establishments | Statewide | Anchorage |
| 36 | * | Westward Hilton Corp. | 384 | 319 | Hotel | Anchorage | Anchorage |
| 37 | 32 | Sheffield Enterprises Inc. [6] | 378 | 403 | Hotel | Anchorage | Anchorage |
| 38 | 28 | Anchorage Times Publishing Co. Inc. | 373 | 362 | Newspaper | Anchorage | Anchorage |
| 39 | 37 | Chugach Electric Association Inc. | 372 | 302 | Electric Utility | Statewide | Anchorage |
| 40 | 46 | Alaska Pulp Corp. | 358 | 401 | Pulp & Lumber Products | Sitka | Sitka |

employment. Compared to the 1985 Trends 50 list there were changes in the industry characteristics. There were increases in the proportion of manufacturing and services representation and declines in the rest of the industries. Finance-insurance and real estate and construction lost the largest share of Trends 50 employment.

Not only do these 50 firms represent a considerable portion of jobs in Alaska, they represent a significant share of employment in their specific industries. The prime example is the mining industry. The four oil and gas firms represented over 61% of total oil and gas employment out of a total of over 120 firms. The two largest oil and gas firms, ARCO and Standard Alaska, accounted for nearly half of oil and gas employment in 1986. On the other side of the scale, the construction industry is predominantly composed of small firms. Less than three percent of total construction employment is within the largest 50 employers.

Retail trade firms in the Trends 50 represented 18% of total trade employment. Some members however, make up a greater share of their specific retail business. For example, the largest two firms in the trade industry are also Alaska's largest grocers. Carr's and Safeway represent 47.3% of total employment in Alaska's food store industry. Four department store merchants (Fred Meyer, Sears, JC Penney and Nordstroms) had employment levels in 1986 that accounted for nearly 85% of statewide employment levels within the general merchandise portion of retail trade.

The largest services firms (Providence Hospital, Lutheran Hospital and Homes Society, and Humana Hospital) accounted for over 3,330 jobs in 1986. This was over three quarters of the private hospital, nursing and personal care facilities employment in Alaska.

Three of the seven firms in the transportation, communication, and utilities industry group are air carriers or

## Table 1 (continued)
## *Alaska Economic Trends*
## Top 50 Employers
## (based on 1986 average employment)

| 1986 Rank | 1985 Rank | Firm | Employment 1986 | Employment 1987/a | Industry | Area | Headquarters or Largest Site |
|---|---|---|---|---|---|---|---|
| 41 | 36 | The Office Place | 355 | 308 | Office Equipment/Supplies | Statewide | Anchorage |
| 42 | 41 | Tanana Chiefs Conference Inc. | 354 | 335 | Non-profit service | Statewide | Fairbanks |
| 43 | 45 | ERA Helicopters Inc. | 331 | 284 | Air Carrier | Statewide | Anchorage |
| 44 | * | Servair Inc. | 329 | 328 | Air Transportation Service | Statewide | Anchorage |
| 45 | 42 | International In-Flight Catering Co. Ltd | 327 | 240 | Retail-food catering | Anchorage | Anchorage |
| 46 | * | Our Lady of Compassion Care Center | 325 | 317 | Health Care | Statewide | Anchorage |
| 47 | 38 | Alaska National Bank of the North[7] | 321 | 0 | Banking | Statewide | Anchorage |
| 48 | * | Trident Seafoods Corporation | 319 | 661 | Seafood Processing | Statewide | Dutch Harbor |
| 49 | 44 | Sheraton Anchorage Hotel | 313 | 286 | Hotel | Statewide | Anchorage |
| 50 | 49 | The Salvation Army--Alaska Division | 311 | 298 | Non-profit services | Statewide | Anchorage |

### Dropped Out of Trends 50

| 1985 Rank | Firm | 1985 Employment |
|---|---|---|
| 27 | Pioneer Construction Co. | 437 |
| 35 | AIC-Martin JV, Inc. | 385 |
| 39 | H C Price Construction Co. | 365 |
| 43 | Alaska Sales and Service, Inc | 338 |
| 47 | Reeve Aleutian Airways | 313 |
| 50 | First Interstate Bank | 308 |

a/ 1987 data based on first 6 months only.

* New Top 50 members in 1986

[1] Includes all Carr-Gottstein companies. Carrs Quality Centers alone accounts for 83%.

[2] Includes Fairbanks Memorial Hospital and facilities in Kodiak, Soldotna, and Valdez.

[3] This is Alaska's largest McDonald franchise. It includes Anchorage, Palmer and Wasilla outlets. This franchise sold in late 1986 and in 1987 to several franchise owners.

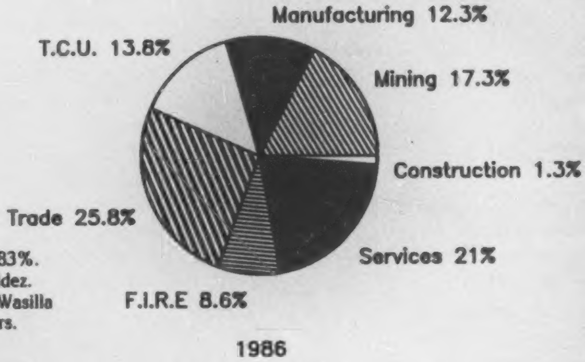
[4] Seattle Standard Corp. is the parent corporation during this period.

[5] This franchise includes Anchorage, Fairbanks, Wasilla Burger Kings.

[6] Was sold to Holland America/Westours in 1987, operated under the name Westmark Hotels.

[7] Went bankrupt in 1987. Deposits and selected assets were taken over by National Bank of Alaska.

Figure 2
The Trends 50
Employment by Industry



they service the airline industry. They accounted for 31% of all air transportation employment in Alaska. Alyeska Pipeline Company is in a league by itself, providing 90% of the jobs in the oil pipeline industry. Alascom is the big player in the telephone communications, representing nearly half of that industry's total employment (this does not include local government owned and operated systems).

The three banks and credit unions among the 1986 Trends 50 list represented over 60% of banking/credit union employment statewide.

### Location of the Trends 50

The Trends 50 are found throughout Alaska, from Ketchikan to the North Slope, and from Cordova to Adak. In 1986 they had employees in at least 57 communities across Alaska. Alaska's largest employers are found in the greatest number in Anchorage followed by Fairbanks and Juneau. Geographically speaking, financial institutions are the most widely distributed firms. On average, they had employees in 13 communities and in as many as 22 communities.

The trade, air transportation, telephone communication and services industries were represented in more communities than other industries. Among those in the trade industry, Sears and Spenard Builders Supply had operations in more communities than any other retail establishment. Carrs and Safeway have locations in the six largest communities in southcentral Alaska. These two grocers and Spenard Builders Supply also have several locations in Anchorage.

Because of the scope of their services, Alascom, MarkAir and Alaska Airlines are located across the state, each having employees in at least 15 communities. The Salvation Army was found in many of the same communities. According to our records The Salvation Army had employees in 13 Alaska communities in 1986. The only hotel operator in Alaska among the Trends 50 with locations beyond Anchorage was Sheffield Enterprises—now owned by Holland America/Westours and operated under the name Westmark Hotels.

Unique among the Trends 50 are the oil and construction companies location of operations. The oil companies operate on the North Slope and in Cook Inlet, but have their headquarters in Anchorage. The construction firm, Brown & Root U.S.A., is much the same as the oil firms. Headquartered in Anchorage, its main operations are on the North Slope, related to oil field construction.

The majority of manufacturing firms among the Trends 50 are in the fish processing and lumber and paper manufacturing sectors. These firms are the most likely not to be located in Anchorage. On the other hand, Alaska's two largest newspapers are Anchorage based, but distributed statewide.

### Conclusion

Alaska's 50 largest employers contribute a large share of total jobs in Alaska. In 1986 they accounted for over 31,200 jobs, 21% of total private employment in Alaska. They represent a variety of industries and have operations across the state. These firms have been major contributors to the economy and will continue to play a leadership role in Alaska's future.

### Trends 50 Data Table

Provided in Table 1 are the Trends 50 ranked by employment. Also provided are the firms headquarters location and industry information. Ranking is based on 1986 annual average employment data, which are provided in column 4 of Table 1. The next column contains employment data for the first six months of 1987 (the most current data available at survey time). Although the 1987 data are not directly comparable with the 1986 annual average data because of seasonal and other cyclical fluctuations they provide some insights into the employment trends of these firms.

Overall, the companies in the Trends 50 will remain relatively stable from 1986 to 1987. The rankings will shift around, but only Alaska National Bank of the North will drop out for certain. Another one or two appear on the verge of dropping out based on their data for the first half of 1987. In addition, their relative economic durability is illustrated by the fact that total employment among these employers fell about half as much as the decline in total private employment from 1986 to 1987.

Column 6 is the firms primary business activity. This would not include all business activities which a firm may be involved in. Column 7 and 8 contain location information. If the firm operates in more than one community, then it is designated a statewide firm. If it operates in only one location that place is listed. The second location provided gives the company's Alaska headquarters or the location of its largest operation.

---

[1] *The employment data are based on records of unemployment insurance tax, which every employer in the state with one or more employees must pay. The employment data are based on U.I account numbers, so the employment figures may not include the total employment of a parent company if the subsidiaries are under another account number. The employment information is protected by confidentiality laws and therefore it was necessary to receive written permission from each company to release their employment information.*

*The number of employees is a job count. It represents the total number of people who worked during the pay period including the 12th of each month. This is not an unduplicated count of the number of different individuals because some workers are reported by more than one employer due to dual job holding and labor turnover. No distinction is made between full-time and part-time employment.*

## The Center of Alaska's Bottomfish Grounds: Kodiak and the Aleutian Islands

**By Neal Fried**

Not until recent news articles reported on the boom town of Unalaska/Dutch Harbor were many Alaskans aware of the flourishing bottomfish industry taking the Kodiak-Aleutian Island region by storm. The remoteness of the Aleutian chain and the Bering Sea are partially responsible for this lack of awareness. Additionally, not many Alaskans are familiar with activity in the Aleutians, as so much of their commerce is with Seattle and other areas outside of the state.

While the news of layoffs, foreclosures, record vacancies, and bankruptcies dominate the state's economic news, Kodiak Island and the Aleutian chain are prospering. As a consequence, labor shortages are a problem and housing is in short supply. Things weren't always this way. Prior to 1985, while most of the rest of state basked in a petroleum revenue economic boom, many communities in the Kodiak-Aleutian region were suffering from economic decline. The crash of the lucrative king crab fishery hit many of the communities in this region hard. Dutch Harbor plummeted from the number one port in value of production in the nation to number 22. Kodiak's fate was not much different. The present prosperity of the region is perhaps making up for lost time.

### The Emergence of the Groundfish Boom

No one single event initiated prosperity but the development of Alaska's "bottomfish" resource is one primary cause. In addition large opilio crab (snow crab) harvests have augmented fishermen's income. Increased military activity on the Aleutians provides additional stimulus to the region's economy. Other favorable influences include better than average salmon and halibut catches and prices, favorable exchange rates, and signs of a comeback in the Bering Sea/Aleutian king crab fishery.

The Aleutian chain and Kodiak sit in the middle of one of the richest bottomfish waters in the world. Last year the ports of Kodiak and Unalaska ranked second and fourth in the nation for value of fish production. Unalaska's 1987 value of production of $62.7 million represented almost a doubling in the value of the fishery over the previous year. In 1987 the ex-vessel value[1] of the state's groundfish fishery was $388 million.

For all of Kodiak's communities, and more than three quarters of the communities on the Aleutians, fishing reigns king. According to Stephen Braund and Associates, roughly 70% of King Cove's income comes from fishing. Many of the other economies in the region are not much different. Some communities are doing well without an increase in fishing activity. Shemya and Adak are military installations. Cold Bay is a former military base and is now a government and transportation center. The Navy budget in Adak has more than doubled since 1980. Uniformed military personnel on the Aleutian Islands increased from 2,200 in 1983 to 2,984 in 1987. This has been another major source of economic stimulus to the Aleutians, though the benefits from this activity have remained localized.

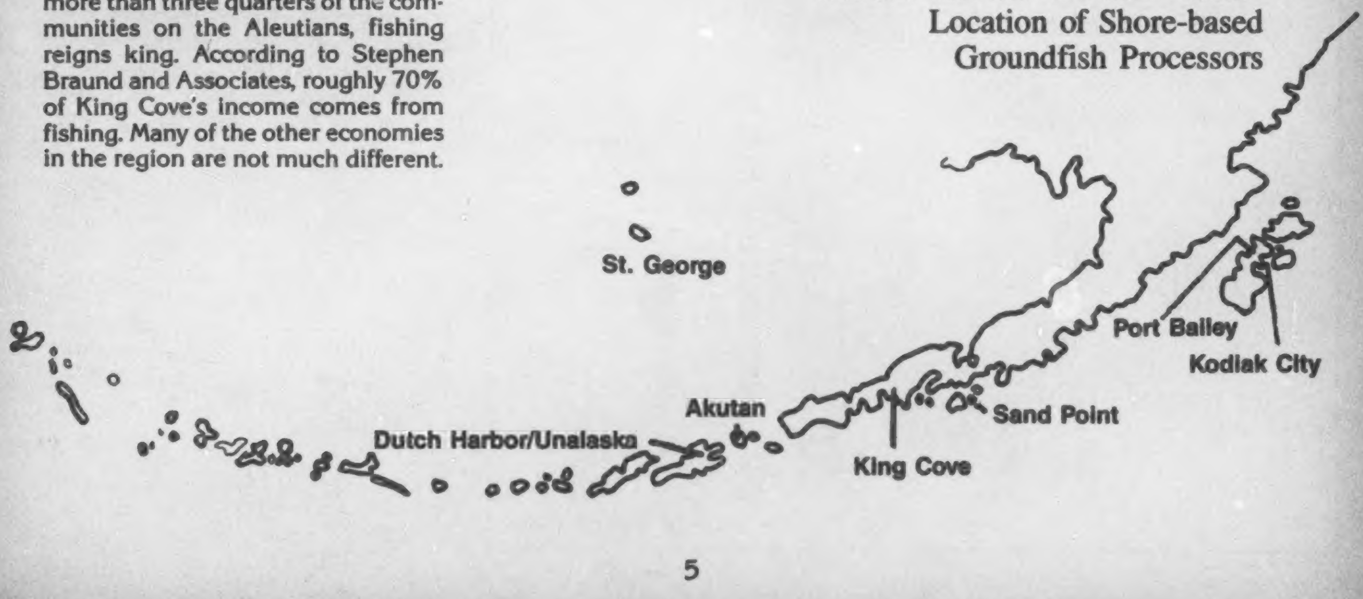
Other towns such as Atka and Nikolski with populations of less than 100 have yet to benefit from the commercial fishery primarily because they are more subsistence oriented. The Pribilof Island communities of St. George and St. Paul used to rely on the seal harvest as the basis of their economy. Presently, they are building infrastructures to take advantage of the local fishery resources.

### What are Bottomfish?

Bottom or groundfish (the terms can be used interchangeably) loosely refers to pollock, cod, sablefish, perch, rockfish, flounder, and other species (Figure 2). The Japanese and others have fished these resources heavily since the 1950s, exploiting a giant resource which created little interest in Alaska. More than 92% of

**More than 92% of the bottomfish harvest comes from the Bering Sea/Aleutian Islands area.**

Figure 1
Kodiak and the Aleutian Islands
Location of Shore-based
Groundfish Processors

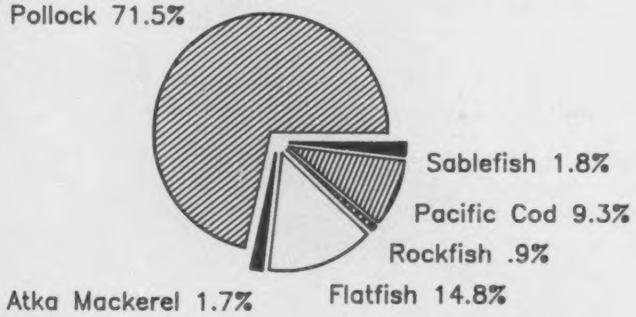


the bottomfish harvest comes from the Bering Sea/Aleutian Islands area. If we add the waters surrounding Kodiak Island the figures would climb to nearly 100%.

## The "Americanization" of the Fishery

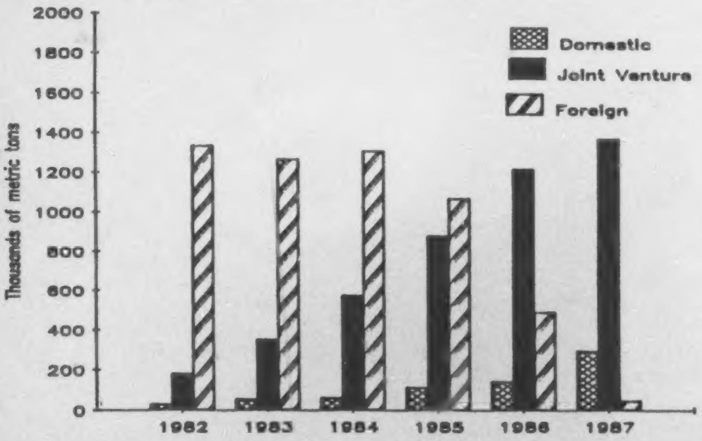
In 1976 Congress passed the Magnuson Act. One intent of the act was to Americanize the fishery within the 200 mile limit by allocating an increasing share of the bottomfish resource to domestic fishermen at the expense of foreign harvesters. For a number of years the act had little impact on Alaska or on the domestic industry. Through the early 1980s, American fishermen continued to fish only for the higher value species (salmon, herring, halibut, and shellfish) and ignored bottomfish.

Figure 2
Alaska Groundfish Harvest by Species, 1987



Source: National Marine Fisheries Service

Figure 3
Alaska Groundfish Harvest 1982-1987



Source: National Marine Fisheries Service

In 1982 almost 1.3 million metric tons of bottomfish were caught in Alaskan waters and processed by foreign vessels. The foreign catch represented 86% of the area's harvest. Though some of these foreign operations made occasional calls at Unalaska and other ports in the region, most were self-contained operations. Little or no economic benefits accrued to the communities of Kodiak or the Aleutian Chain.

As the worldwide and domestic demand for all fish grew rapidly, prices began to rise and the resource became more attractive to domestic fishermen. Then in 1981 the king crab fishery crashed. Many fishermen had made large investments in crab boats and needed to find an alternative way to make payments on their vessels. They began to turn to joint venture bottomfish operations as a way to keep their boats operating. This is an example of where adverse circumstances led to the development of a new industry.

Joint ventures meant American fishermen harvested the fish and foreign factory ships bought their fish and processed them at sea. This provided a market for domestic fishermen with prices high enough to make these ventures profitable. In 1981 joint ventures harvested 94,689 metric tons in Alaska. By 1985 it increased nine fold, to 884,000 metric tons (A metric ton is equivalent to 2,205 pounds). Last year joint ventures in the region harvested 1.4 million metric tons.

The volume of domestically caught and processed fish began to grow albeit more slowly. In 1982, domestic operations caught and processed 33,000 metric tons of groundfish, and by 1987 it climbed to 296,000 metric tons. The growth in joint ventures and domestically caught and processed fish came at the expense of the foreign catch (Figure 3). By 1987 the foreign catch fell to 3% of the state's entire catch, in comparison to more than 86% of the catch in 1982. In 1988 there is no foreign quota for fish as domestic and joint ventures will harvest the entire catch.

Development of the joint ventures and domestic bottomfishery has allowed a number of communities in the region to reap economic benefits which had been previously elusive. Domestic fishing boats bought more supplies from the local communities. Residents began harvesting the fish, boosting local income. In 1981, 130 Alaskans were issued fishing permits for groundfish and by 1987 the number had grown to 1,230 (Figure 4).

Though most residents still benefit more from traditional fisheries, the bottomfish industry is providing an economic boost to many of the region's residents. Unemployment rates have fallen to remarkably low levels since the high rates during the king crab bust. In 1982, Kodiak's unemployment was 11.4% and by 1987 it had fallen to the second lowest in the state, 6.1%. The Aleutians unemployment rate for the same period declined from 7.3% to 3.6%, the lowest in the state.

Recent investment in the region indicates an expanding economy. The most dramatic example occurred in Unalaska. According to Alaska Construction and Oil Magazine, hundreds of millions of dollars are being sunk into harbors, warehouses, processing plants, shipyards, hotels and housing in Unalaska. Almost all of it is private capital. The biggest projects include the Captains Bay $7-10 million marine industrial park and ship repair facility, a $7.5 million project by Offshore Systems Inc. (similar to Captains Bay), and $20 million for new surimi production facilities by Alyeska Seafoods. Great Land Seafoods also made substantial investments in their surimi plant.

Smaller communities such as Sand Point and King Cove have experienced major upgrades in their facilities. Sand Point is presently spending $2.4 million in harbor expansion. In King Cove, Peter Pan Seafoods has nearly completed a $7 million upgrade to their plant.

Much of Kodiak's public infrastructure expansion to support the fishing industry took place in the early to mid 1980s. Recently, a number of processors have expanded. All Alaskan Seafoods expanded their plant last year and Western Alaskan is enlarging their facility in anticipation of surimi production. Other processors have increased the utilization of their space and have added processing equipment for bottomfish. In many cases this has meant converting their king crab and shrimp lines into bottomfish operations.

Possibly the single most ambitious project is being undertaken on St. George, one of the Pribilof Islands. Presently, there is only a small processing and cold storage facility on St. George, despite its central location in the Bering Sea. A $20 million breakwater/dock is presently being completed. St. George hopes to become a major support base for the domestic fishing fleet and serve as a processing center for crab, halibut and bottomfish. St. Paul, the other Pribilof island, is undertaking a similar project.

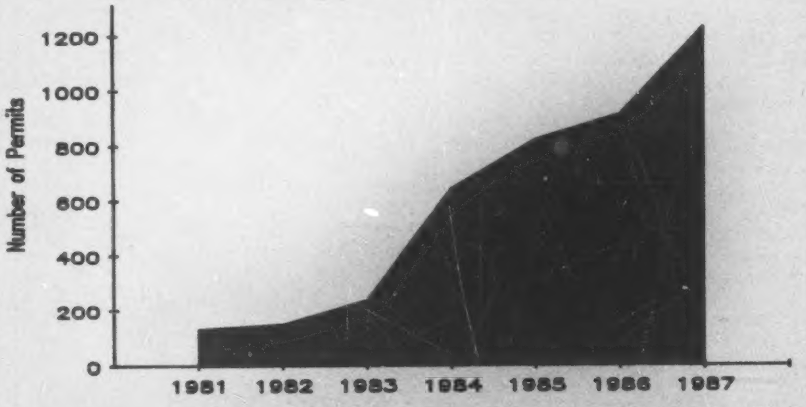
**The groundfish fishery has made the fishing industry far less seasonal.**

### Processing Bottomfish

An additional economic benefit to the region's communities is shore-based processing of groundfish. Alaska shore-based processing of groundfish is relatively recent, taking hold in 1985, though a number of false starts and smaller operations occurred earlier.

Figure 4

Number of Commercial Fishing Permits Issued in Alaska to Alaska Residents, 1981-1987



Source: National Marine Fisheries Service

Local production of surimi provided an initial boost to the region's shore-based processing. Surimi, a substance described as an "odorless, tasteless and gelatinous substance," is a fish paste made from minced pollock. Imitation seafood, such as scallops, crab and shrimp are made from surimi. The region produces all of the surimi in the state. The first production of surimi in Alaska was in a demonstration plant in Kodiak in 1984. In 1985 Alaska Pacific Seafoods of Kodiak produced the first commercial surimi in the state. By 1987, three shore-based plants were producing surimi. One is in the city of Kodiak and two in Unalaska-Dutch Harbor. Another surimi line is being added this year in Kodiak.

Figure 5
Kodiak/Aleutian Islands Fish Processing Employment 1980-1987

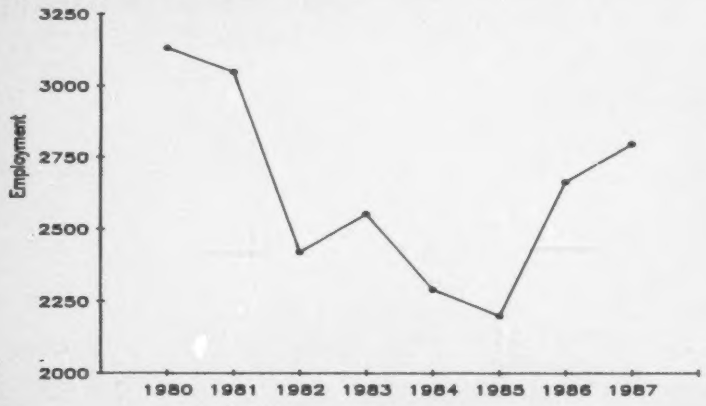


**Table 1**
**Kodiak Employment by Industry**
**1980 - 1987**

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 4,464 | 4,381 | 4,399 | 4,880 | 4,866 | 4,688 | 4,981 | 4,734 |
| Mining | * | * | * | * | * | * | * | * |
| Construction | 101 | 136 | 304 | 582 | 342 | 280 | 276 | 198 |
| Manufacturing | 1,880 | 1,547 | 1,275 | 1,378 | 1,473 | 1,380 | 1,733 | 1,569 |
| Food & Kindred Prod.[1] | 1,544 | 1,424 | 1,167 | 1,285 | 1,423 | 1,326 | 1,708 | 1,534 |
| All Other Mfg. | 336 | 123 | 108 | 93 | 50 | 54 | 25 | 35 |
| Trans. Comm. & Utilities | 352 | 320 | 297 | 311 | 298 | 231 | 188 | 222 |
| Trade | 611 | 595 | 708 | 723 | 749 | 813 | 757 | 834 |
| Wholesale | 35 | 17 | 27 | 37 | 35 | 49 | 52 | 50 |
| Retail | 576 | 578 | 681 | 686 | 715 | 764 | 706 | 784 |
| Finance-Ins. & R.E. | 98 | 95 | 101 | 104 | 103 | 105 | 110 | 108 |
| Services | 562 | 545 | 570 | 611 | 605 | 641 | 663 | 717 |
| Government | 1,038 | 1,051 | 1,044 | 1,114 | 1,165 | 1,174 | 1,209 | 1,081 |
| Federal | 286 | 257 | 252 | 253 | 241 | 243 | 243 | 234 |
| State | 207 | 253 | 260 | 273 | 282 | 282 | 266 | 237 |
| Local | 545 | 541 | 532 | 588 | 643 | 650 | 700 | 610 |
| Miscellaneous | * | * | * | * | * | * | * | * |

* Nondisclosable

[1] In Kodiak's case, these figures represent fish processing employment.

Source: Alaska Department of Labor, Research and Analysis.

Processing groundfish into fillets and fish blocks (for fish sticks) also caught on quickly. By 1987, 17 of the region's 25 shore based plants were processing bottomfish. Five years earlier there was not one substantial operation.

The manufacturing figures in table 1 and 2 illustrate the growth in bottomfish processing. On the Aleutian chain employment fell dramatically in 1982 and continued its descent through 1984. Kodiak fish processing employment fell even more dramatically. The declines came as a result of the king crab fishery which almost closed down completely for a few years. Beginning in 1985 bottomfish activity helped to replace these losses. Total employment in both areas increased as a result of the emerging fishery. Though we can't always isolate bottomfish processing numbers from those of other species, it's possible to estimate jobs in certain months. For example during the first quarter of 1987, there were 1,385 fish processing jobs in Kodiak, most of them processing bottomfish. In May, employment reached nearly 2,000. Kodiak has become the bottomfish shore-based processing center in the state (Figure 5). Unalaska, on the other hand, is more of a service and supply center to the Bering Sea/Aleutian fishing fleet.

In addition to boosting employment numbers, the groundfish fishery has made the fishing industry far less seasonal. The pursuit of groundfish is a year-round activity, unlike the salmon season that lasts 2-3 months, or fisheries for halibut or herring which last 1-3 days. It has meant many plants are remaining open almost the entire year, although this could change as the fleet harvesting groundfish continues to grow. This is already happening for some of the fisheries. Management of the fishery will determine the future length of the seasons.

Recent data indicates nonresidents fill 73% of the Aleutians' and 53% of Kodiak's fish processing jobs. These numbers are probably conservative, because these figures fail to capture most of the floating processor's employment. However, if bottomfish can help provide a continuing source of year-round shore-based processing employment more local residents might choose to work in this industry. In addition, seasonal workers who currently leave the area might choose to make a longer commitment to these communities if year-round employment were available.

**How Much Does The Region Benefit?**

The number of floating processors in the domestic fleet has grown dramatically. According to the Alaska Department of Environmental Conservation's records there were about three times as many floating processors permitted in 1987 than in 1980. In 1985 floating processors landed 82 million pounds of groundfish compared to 142 million pounds in 1987. For example, the largest catcher/processor operator in the country, Seattle-based Arctic Alaska Seafoods operated two vessels in 1982. They hope to be operating 19 by the end of the year. In 1986 Arctic Alaska accounted for 34% the U.S. processed North Pacific bottomfish.

There is a concern regarding the growing number of floating processors in the region's communities and throughout the state. Since most of the floating processors are based in Washington state, this type of activity usually provides little economic benefit to the communities which sit in the middle of these fishing grounds. Crews often come from outside. The floating processors don't pay local property taxes or in most cases the raw fish tax. They buy few supplies or perform major repairs in the local communities. Some operators are beginning to home port in Alaska and hire local workers. More of the region's communities are building repair facilities that are capable of handling the larger vessels. But the economic leakages remain considerable.

**Table 2**
**Aleutian Islands Employment by Industry**
**1980 - 1987**

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Nonag. Wage & Salary | 2,589 | 3,435 | 3,157 | 3,388 | 3,139 | 3,172 | 3,418 | 3,564 |
| Mining | * | * | * | * | * | * | * | * |
| Construction | 112 | 118 | 81 | 131 | 108 | 192 | 210 | 214 |
| Manufacturing[1] | 1,586 | 1,625 | 1,255 | 1,269 | 870 | 874 | 959 | 1,173 |
| Trans. Comm. & Util. | 127 | 183 | 209 | 191 | 186 | 237 | 247 | 312 |
| Wholesale Trade | * | * | * | * | * | * | * | * |
| Retail Trade | 104 | 113 | 115 | 109 | 105 | 117 | 199 | 214 |
| Finance-Ins & R.E. | 76 | 97 | 92 | 97 | 144 | 129 | 133 | 119 |
| Services | 146 | 146 | 162 | 307 | 367 | 299 | 264 | 188 |
| Government | 1,081 | 1,131 | 1,230 | 1,267 | 1,324 | 1,337 | 1,385 | 1,315 |
| Federal | 676 | 686 | 723 | 729 | 720 | 694 | 742 | 682 |
| State | 68 | 66 | 76 | 72 | 74 | 80 | 74 | 70 |
| Local | 337 | 379 | 431 | 467 | 530 | 563 | 569 | 563 |
| Miscellaneous | * | * | * | * | * | * | * | * |

* Nondisclosable

[1] Fish processing employment represents more than 95% of the Aleutian Island manufacturing employment

Source:Alaska Department of Labor, Research and Analysis.

**Table 3**
**Aleutian Islands Population**
**1980 & 1985**

| | 1980 | 1985 | Percent Change |
|---|---|---|---|
| Total Aleutian Islands | 7,768 | 9,061 | 16.6 |
| Adak | 3,315 | 4,665 | 40.7 |
| Akutan | 169 | 80 | -52.7 |
| Atka | 93 | 93 | 0.0 |
| Attu | 29 | 31 | 6.9 |
| Cold Bay | 228 | 157 | -31.1 |
| False Pass | 70 | 77 | 10.0 |
| King Cove | 460 | 547 | 18.9 |
| Nelson Lagoon | 59 | 44 | -25.4 |
| Nikolski | 50 | 46 | -8.0 |
| Sand Point | 625 | 671 | 7.4 |
| Shemya | 600 | 613 | 2.2 |
| St. George | 158 | 191 | 20.9 |
| St. Paul | 551 | 466 | -15.4 |
| Unalaska | 1,322 | 1,331 | 0.7 |
| Rest of Aleutian Islands | 39 | 49 | 25.6 |

Source: Alaska Department of Labor, Research and Analysis.

The leakages are not limited to the processing part of the industry because the harvest end may provide a larger drain. Though Americanization of the fish harvesting has occurred rapidly during the past five years, it has not necessarily meant "Alaskanization." According to *Alaska Business Monthly*, only 10 of the 150 catcher vessels operating in the Bering Sea were Alaska owned or based. In 1985, the Washington fleet harvested 92% of Alaska's domestic and 82% of the joint venture catch. Natural Resource Consultants of Seattle estimate 79% of Washington state's groundfish harvest comes from Alaskan waters. Some people refer to Seattle as the "whitefish capital of the world,"

### Table 4
### Kodiak Island Population
### 1980 & 1985

| | 1980 | 1985 | Percent Change |
|---|---|---|---|
| Total Kodiak Island | 8,569 | 11,221 | 30.9 |
| Akhiok | 105 | 109 | 3.8 |
| Karluk | 96 | 114 | 18.8 |
| Kodiak | 4,756 | 6,173 | 29.8 |
| Larsen Bay | 168 | 217 | 29.2 |
| Old Harbor | 340 | 344 | 1.2 |
| Ouzinkie | 173 | 235 | 35.8 |
| Port Lions | 215 | 302 | 40.5 |
| Rest Kodiak Island | 2,716 | 3,727 | 37.2 |

Source: Alaska Department of Labor, Research and Analysis.

though most of the catch comes from Alaskan waters.

According to a University of Alaska study on the state's commercial fishery, the income multiplier in the region was 1.2, the lowest in the state. Nearly 37% of all fishermen in Southwest Alaska (excludes Kodiak) were nonresidents. The combined Kodiak-Aleutian Island wage and salary work force was 43% nonresident. Much of the economic activity taking place is not benefiting the region or the state.

**If the region reaps more of the benefits of this incredibly rich fishery, the growth occurring today could be magnified immensely in the future.**

## Solutions

The Southwest Alaska Municipal Conference and the City of Unalaska have introduced a number of proposals for changing how the fishing industry conducts business. They would give the region the ability to capture a bigger share of the benefits the industry produces. One proposal is to Americanize the fuel and transportation segment of the fishing industry. It would require the foreign fishing fleet to ship their products on U.S. carriers and purchase fuel from U.S. distributors. They believe the intent of the Magnuson Act is broad enough to include such a provision.

Another proposal would have a more localized impact on all of the region's communities. They propose the individual communities in the region receive part of the bottomfish allocation-known as community development quotas. The communities would be free to harvest the resource themselves or sell the rights to the harvest. A similar system exists in some New Zealand communities today.

Other solutions include: getting the state to provide additional funds for infrastructure development, such as sewer and water lines, airports and harbors; providing tax incentives to encourage more shore-based processing and cold storage facilities; and developing educational opportunities in Alaska emphasizing fisheries.

## Conclusions

The groundfish resource is there, and more importantly a demand for it exists. This is in contrast to the situation for some of Alaska's other natural resources. Dutch Harbor, growing to the present size of Kodiak, and Kodiak growing considerably larger is not inconceivable. All communities in the region are likely to benefit from this fishery. Other parts of Alaska, including Anchorage, could be major benefactors. The potential is huge, even if no increase in catch were to occur. The Japanese once estimated that the Bering Sea produced 500,000 jobs in Japan. This is double the present size of Alaska's entire work force. Capturing more of the present activity in the form of harvesting and processing the fish could result in the growth described above.

In addition, value added and marketing activity provides additional potential. Shipping blocks of surimi to Seattle or Japan for processing it into crab legs or shrimp could become less common. Processing and packaging large blocks of Alaskan caught frozen fish into fish sticks locally is no impossible task. If the region reaps more of the benefits of this incredibly rich fishery, the growth occurring today could be magnified immensely in the future.

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NOTES:

[1] *Ex-vessel value is the renumeration paid to the seafood harvester for the value of fish or seafood offloaded from the catch vessel.*

# Alaska Wage Rates—Are They Declining?

**By Dan Zobrist**

There appears to be a widespread belief that wage rates in Alaska are dropping. That the many advantages of being an Alaskan may not include a top-of-the-line rate of pay. This conventional wisdom is pervasive and has made commonplace a discussion of such topics as "brain-drain," which refers to the flight out-of-state of skilled workers seeking the highest bidder. To help in the understanding of this question, and of other questions related to Alaska wage rates, this article presents evidence on current Alaska wage rates as measured by a variety of sources.

"Tough times never stay but tough people do." Alaska's boom years of 1980-85 brought a net migration to Alaska of an estimated 73,340 people. Seeking their gold in the urban centers of the state, new residents, along with the old, enjoyed rising incomes and wages as oil prices peaked and tens of thousands of jobs were added to the economy. The collapse of oil prices in 1986 was the prime cause of this trend's reversal. Average annual employment in 1986 dropped 9,346 from 1985, and, for the first time in the 1980s, there was a net out-migration from the state of an estimated 4,144 people. The following year, an additional estimated 19,335 people left the state.

**The average wage from job openings in Anchorage dropped by over four percent.**

Tough times caused Alaska to drop from number one in 1985 to number five among the fifty states in per capita personal income in 1987. Total earnings from wages and salary dropped $451 million from 1985 to 1986, and the average monthly wage dropped by $277, due mostly to the reduction of the number of hours worked each month. This last monetary statistic, the drop in wages, requires more careful analysis.

There is no scientific sample to allow a strict statistical measure of statewide wage rates for most occupations employed in the private sector. Instead, there are a variety of sources of information on Alaska wage rates, each with its relative strengths and weaknesses.

## Alaska Job Service—Wage Rates for Job Orders

Job Service, also known as the Alaska State Employment Service, argues correctly that it is the largest employment agency in Alaska. The most important, though not the exclusive, role of Job Service is to match workers who are looking for work with employers who are looking for workers. Employers place a job order, at a given wage, with Job Service for an opening in an occupation which they wish to fill. Their annual report for state fiscal year 1987 reports that Job Service received over 46,000 job openings, primarily in seafood processing, service, construction, and clerical occupations.

One of the strengths of the Job Service wage data is that they are driven by employers who are responding to changes in the labor market or to the demand for their product. A weakness of data from this source is that they are only wage offers and subject to revision upward during negotiation

**Table 1**
**Changes in Total Number of Job Openings and Average Hourly Wage**
**Alaska Job Service**

**Number of Openings**

| | 7/86-6/87 | 7/85-6/86 | Difference | Percent Change |
|---|---|---|---|---|
| Statewide | 46,215 | 49,896 | -3,681 | -7.4 |
| Anchorage | 12,996 | 17,394 | -4,398 | -25.3 |
| Fairbanks | 4,491 | 4,359 | 132 | 3.0 |

**Average Hourly Wage**

| | 7/86-6/87 | 7/85-6/86 | Difference | Percent Change |
|---|---|---|---|---|
| Statewide | $6.52 | $7.03 | -$0.51 | -7.3 |
| Anchorage | 6.94 | 7.26 | -0.32 | -4.4 |
| Fairbanks | 7.20 | 7.09 | 0.11 | 1.6 |

Source: Employment Security Automated Reporting System (ESARS), 1986-87 Alaska Department of Labor, Research & Analysis with the worker. Actual wages paid are more likely a compromise between wages asked by labor and those offered by management.

While constrained by certain laws, such as the local minimum wage and those governing wages paid on public construction, an employer can still respond to shifts in the supply curve of labor, or in the demand curve for the product, by offering a lower or higher wage than was offered in a previous market. Therefore, changes in the average wage offered by employers through Job Service, on average, may reveal movements or trends in statewide wage rates.

For example, in comparison with the prior year, the statewide average wage of job openings declined by over seven percent (Table 1). However, 57% of the occupations showed increased wages. One determinant of the overall average wage is the mix of occupations ordered by employers (e.g. the average hourly wage offer for welders was over $14 while that for file clerks was $6). Any significant changes in the occupational mix from year to year will affect the overall average wage rate, and could affect conclusions based on the average rate.

Maintenance and production types of occupations tend to receive higher wage offers than the average of all occupations. Last year, openings from these occupations represented 49% of all openings (Table 2). This year the percentage declined to 47%, while the relatively low-paying agricultural jobs increased from four to seven and a half percent of the total openings. The average wage rate might decline just from influences of this type.

These caveats aside, wage data from Job Service remain an important tool in understanding some of the effects of Alaska's recession. For example, for Anchorage the effects of both a change in the occupational mix of job openings and the decline in wages for specific occupations become apparent. Maintenance and production occupations dropped from 49% to 44%

## Table 2
## Job Openings by Major Occupational Category
## Alaska Job Service

| | Statewide | | | | Anchorage | | | |
|---|---|---|---|---|---|---|---|---|
| | 7/86-6/87 | Percent of all Openings | 7/85-6/86 | Percent of all Openings | 7/86-6/87 | Percent of all Openings | 7/85-6/86 | Percent of all Openings |
| Managers & Officers | 303 | 0.7 | 336 | 0.7 | 64 | 0.5 | 85 | 0.5 |
| Professional & Technical | 1,466 | 3.2 | 1,570 | 3.1 | 490 | 3.8 | 503 | 2.9 |
| Sales | 3,027 | 6.5 | 2,949 | 5.9 | 948 | 7.3 | 1,048 | 6.0 |
| Clerical & Admin. Support | 4,775 | 10.3 | 5,675 | 11.4 | 1,822 | 14.0 | 2,304 | 13.2 |
| Services | 8,296 | 18.0 | 10,027 | 20.1 | 2,347 | 18.1 | 3,394 | 19.5 |
| Agric. Forestry & Fishing | 3,494 | 7.6 | 2,040 | 4.1 | 717 | 5.5 | 533 | 3.1 |
| Maintenance & Production | 21,707 | 47.0 | 24,477 | 49.1 | 5,750 | 44.2 | 8,545 | 49.1 |
| Commission or Not Classified | 3,147 | 6.8 | 2,822 | 5.7 | 858 | 6.6 | 982 | 5.6 |
| TOTALS | 46,215 | 100.0% | 49,896 | 100.0% | 12,996 | 100.0% | 17,394 | 100.0% |

Source: ESARS, 1986-1987. Alaska Department of Labor Research and Analysis

## Table 3
## Average Hourly Wage — OFFICE WORKERS 1977-87

| | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Secretaries | $7.44 | $8.35 | $8.70 | $9.48 | $10.67 | $11.74 | $12.01 | $12.55 | $12.40 | $13.01 | $13.31 |
| Computer Operator | 7.04 | 7.38 | 8.26 | 9.50 | 9.35 | 10.07 | 10.57 | 11.38 | 11.63 | 11.79 | 12.14 |
| Key Entry Operator | 6.25 | 6.61 | 7.04 | 7.85 | 8.28 | 8.72 | 8.84 | 9.11 | 9.02 | 9.16 | 8.46 |
| Switchboard Operator | 5.40 | 5.53 | 5.96 | 6.27 | 6.34 | 6.66 | 7.12 | 7.80 | 7.73 | 8.03 | 8.17 |
| File Clerk | 4.59 | 4.92 | 5.15 | 5.05 | 5.11 | 6.72 | 6.65 | 6.96 | 6.28 | 7.03 | 7.75 |

Source: *BLS Area Wage Surveys*

of the total job openings (Table 2) and they were split 50/50 between occupations with increased or decreased wages (*Alaska Wage Rates 1987*). Clerical occupations increased by one percent in proportion, however, 78% of the clerical occupations, representing 91% of the openings in that occupational category, reported lower wage offers from the previous year. The average wage from job openings in Anchorage dropped by over four percent.

Do Job Service wage data indicate that wage rates have declined from the previous year? The answer may be yes for some occupations in some geographic areas—but wages have also risen. The individual looking for wages for a particular occupation should consult the complete listing of job openings and wage rates available in the publication, *Alaska Wage Rates, 1987*.

**Wage Surveys**

"Occupational wage survey programs are not designed to supply mechanical answers to questions of pay policy." This caution, found in the Bureau of Labor Statistics (BLS) *Handbook of Methods* is from an agency which maintains wage rate records extending continuously back to 1860. The BLS, of the U.S. Department of Labor, conducts "Area Wage Surveys" for over 100 areas of the U.S. Regardless of the above admonishment, these surveys, and others like them, have met a variety of demands for wage information going back to the War Industries Board in 1919, to the Services Contract Act of 1965, and the Federal Pay Comparability Act of 1970.

The strength of these BLS surveys is that they are conducted in a consistent manner, with common definitions of occupations, across many areas, and over many years. These features allow comparability of wage rates between areas, and provide a historical series. Two features restrict the usefulness of this data: the limited number of occupations surveyed, and; the restriction of surveying only firms which employ 50 or more workers. By limiting the survey to relatively large firms, the published rates may not reflect the wages received by workers in medium and small establishments.

BLS wage surveys cover selected occupations of "office" and "plant" workers. The Alaska area survey includes 29 major occupational classifications, within which are distinctions in grade, e.g. secretaries I, II, etc. Tables 3 and 4 illustrate a ten year trend of nominal mean wages for a sample of these occupations.

The ten year trends for "office" workers (Table 3) show a mostly steady

Figure 1
Inflation Adjusted Average Hourly Wage
Carpenters & Switchboard Operators 1977-1987

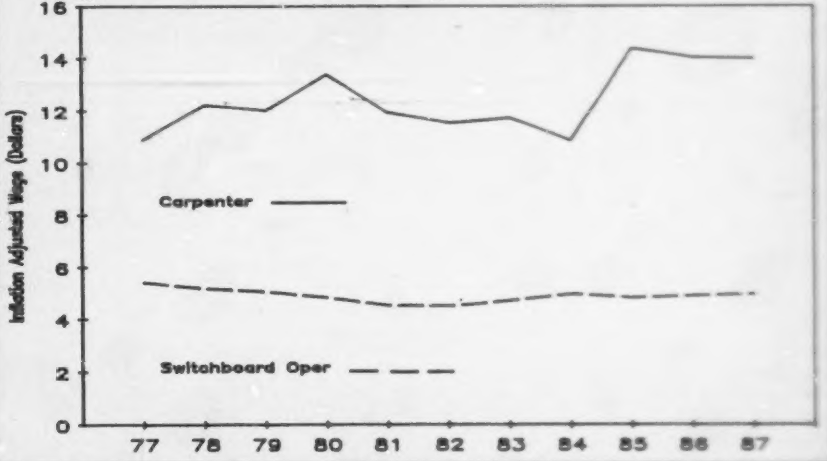


Table 4
Average Hourly Wage Rates- PLANT WORKERS- 1977-87

| | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Maintenance Carpenters | $10.90 | $13.10 | $14.20 | $17.47 | $16.78 | $17.10 | $17.72 | $17.05 | $23.15 | $23.02 | $23.07 |
| Maintenance Electricians | 12.05 | 13.11 | 13.65 | 15.62 | 16.44 | 17.68 | 18.80 | 17.05 | 21.81 | 18.21 | 18.45 |
| Maintenance Mechanics | 11.60 | 12.74 | 10.37 | 9.68 | 13.31 | 18.83 | 19.53 | 20.41 | 20.23 | 21.84 | 21.74 |
| Truckdrivers | 10.22 | 10.45 | 11.80 | 12.31 | 12.08 | 12.22 | 13.33 | 14.97 | 15.81 | 16.21 | 14.95 |
| Forklift Operator | 9.00 | 9.76 | 10.11 | 11.48 | 11.93 | 12.63 | 13.28 | 11.29 | 13.11 | 12.93 | 13.58 |

Source: *BLS Area Wage Surveys*

### Table 5
### Comparison of Wage Differences for Selected Occupations between Alaska and Seattle — 1987

| | Alaska | Seattle | Percent Difference From Seattle |
|---|---|---|---|
| Maintenance Mechanic | $21.74 | $14.42 | 50.8 |
| Motor Vehicle Mechanic | 17.64 | 15.13 | 16.6 |
| General Maintenance Worker | 11.42 | 9.93 | 15.0 |
| Stationary Engineers | 15.04 | 15.07 | -0.2 |
| Truckdrivers | 16.27 | 13.36 | 21.8 |
| Shippers & Receivers | 11.32 | 11.95 | -5.3 |
| Warehouseman | 16.40 | 9.59 | 71.0 |
| Forklift Operator | 13.58 | 12.11 | 12.1 |
| Guard | 9.45 | 5.02 | 88.2 |
| Janitor & Cleaners | 7.62 | 6.91 | 10.3 |

Source: *BLS Area Wage Surveys, 1987*

increase in wage rates through 1987. A different picture emerges when the increases are adjusted for the effects of inflation. Only three of the five occupations in Table 3 meet or exceed the rate of increase in prices from 1977 to 1987, as measured by the Anchorage Consumer Price Index (CPI). Secretaries, file clerks, and computer operators either meet or exceed the 65% rise in consumer prices. The reported wages for switchboard operators are 8% less in 1987 than they were ten years ago. Key-entry operators have especially lost ground in their battle with the cost of living. Their reported wages in 1987 are 18% less than they were in 1977 (Figure 1).

The trends of wages for "plant" workers (Table 4) are more volatile than those of "office" workers. The wages of machinery maintenance mechanics rebounded from a post pipeline construction low of $9.68 per hour to almost $19.00 hourly two years later. Wages for carpenters rose and fell during the decade and then jumped from $17 to over $23 per hour in one year (1985). Both occupations enjoyed wage increases over the ten year span far in excess of the rise in the Anchorage CPI. Figure 1 illustrates the wage trends for maintenance carpenters after adjusting for inflation. The rest of the occupations reported wage declines over the decade ranging from seven to 11%.

How do wages in Alaska stack up against those from outside? BLS Area Wage Surveys are good sources for comparisons. Table 5 compares a sample of Alaska wages with those from the Seattle, Washington Metropolitan Area surveyed in 1987. Although most of the occupations show higher wages in Alaska, there are some wild swings of differences. Guards in Alaska enjoyed an 88% ad-

### Table 6
### Alaska Wage Rates 1987
### (Nonunion)
### Regional Comparisons

| | Alaska Statewide | Anchorage MatSu Region | Interior Region | Southeast Region | Gulf Coast Region | Southwest Region | Northern Region |
|---|---|---|---|---|---|---|---|
| Merchandise Managers | $16.01 | $16.83 | $19.24 | $14.53 | $13.54 | $13.76 | $10.59 |
| Electronic Engineering Technicians | 17.51 | 18.31 | 12.61 | 15.69 | 17.47 | | 19.39 |
| Accountants & Auditors | 18.55 | 18.15 | 19.53 | 19.15 | 20.38 | 17.67 | |
| Cashiers | 6.53 | 6.89 | 6.78 | 7.97 | 5.42 | 6.89 | 6.03 |
| Nurses: Registered | 15.33 | 13.87 | 16.96 | 16.20 | 14.98 | | |
| Secretaries | 11.87 | 11.73 | 11.23 | 12.60 | 11.61 | 11.98 | 13.07 |
| Stock Clerks | 10.95 | 10.50 | 9.95 | 8.73 | 10.46 | 6.27 | 15.96 |
| Clerical Supervisors & Office Managers | 15.73 | 17.22 | 15.16 | 14.04 | 13.75 | 13.59 | 15.30 |
| Bookkeeping & Accounting Clerks | 11.10 | 10.88 | 11.40 | 11.31 | 10.15 | 11.77 | 13.39 |
| Bakers | 9.43 | 8.75 | | 10.53 | 7.23 | | 12.39 |
| Dental Assistants | 11.39 | 12.05 | 11.06 | 11.84 | | | |
| Bartenders | 8.56 | 7.64 | 8.12 | 8.54 | 8.84 | 7.90 | 10.59 |
| Carpenters | 17.90 | 14.59 | 12.52 | 16.68 | 17.03 | 19.98 | 19.54 |
| Electricians | 17.39 | 12.75 | | 17.92 | 20.11 | | 17.94 |
| Automotive Mechanics | 15.92 | 15.42 | 16.61 | 13.36 | 16.33 | 15.58 | 24.41 |
| Laborers | 11.01 | 10.67 | 8.72 | 8.57 | 13.20 | 8.89 | 15.03 |
| Maintenance Repairers | 13.18 | 13.19 | 11.11 | 14.04 | 13.34 | 9.05 | 15.05 |
| Truckers-Light | 9.53 | 9.61 | 8.66 | 9.05 | 13.31 | 9.04 | |

Source: Alaska Wage Rates 1987, Alaska Department of Labor, Research and Analysis vantage in wages over guards in Seattle, while shippers and receivers were at a five percent disadvantage to their Seattle counterparts. The differing rates at which wages differ between these two areas may indicate other influences at work besides geography. Two factors which can influence the average wage are the degree of union participation and size of firms. Influences of these other variables could be explored with the use of econometric techniques.

*Alaska Wage Rates* is an annual survey, first done in 1975, conducted by the Research and Analysis Section in the Alaska Department of Labor. The strengths of the survey are the relatively large number of occupations, with consistent definitions, and the large sample of employment surveyed: almost 150 occupations and nearly 24,000 workers. Many of the occupations covered are professional and technical ones for which information on wages is not available from any other source. The survey includes data on wages for union, nonunion, and state government workers (for comparable occupations). The information from this survey is published each year and is also available to counselors and job seekers through the Alaska Career Information System (AKCIS).

For the 1987 wage survey, the department changed its estimating methodology from prior years to better estimate the average (mean) wage. This means that comparisons of the survey with those of earlier years is not possible. But one of the strengths of the wage survey is its regional information. While no strict comparisons across regions can be made without a scientific sample, it is still useful for many purposes to review the wages reported for each of six regions.

Occupations which were reported from most of the regions are listed in Table 6. As would be expected, the Northern region reports consistently higher wages across occupations.

### Table 7
### Professional & Technical Workers Wage
### Anchorage & Interior - 1987

| | Anchorage | Interior |
|---|---|---|
| Civil Engineers | $24.46 | $22.81 |
| Computer Programmers | 18.80 | 17.94 |
| Drafters | 15.56 | 14.51 |
| Mechanical Engineers | 27.13 | 17.20 |
| Nurses: Licensed Practical | 11.60 | 11.33 |
| Social Workers | 13.24 | 14.31 |
| Surveyors & Mapping Scientist | 17.60 | 19.12 |
| System Analyst: E.D.P. | 23.70 | 19.17 |
| Nurses: Registered | 13.87 | 16.96 |
| Purchasing Agents | 20.09 | 15.19 |
| Electrical Technician | 18.31 | 12.61 |
| Electrical Engineer | 26.89 | 23.29 |

Source: Alaska Wage Rates 1987, Department of Labor, Research and Analysis

### Table 8
### Occupational Wage Rates by Source of Data
### Alaska 1987

| | "Prevailing Wages" | BLS-Area Wage Survey | Job Service | Alaska Wage Rates 1987 |
|---|---|---|---|---|
| Carpenter | $23.95 | $23.07 | $12.79 | $17.90 |
| Roofer | 24.60 | | 15.65 | 20.39 |
| Electrician | 25.77 | 18.45 | 16.49 | 17.39 |
| Painter | 24.50 | 19.82 | 9.12 | 15.61 |
| Truckdriver | 15.76 | 14.95 | 8.63 | 9.53 |
| Maintenance Machinery Mechanic | 23.17 | 21.74 | | 19.30 |
| Receptionist | | 6.84 | 6.48 | 8.44 |
| Computer Programmer | | 16.41 | 13.82 | 18.46 |
| Surveyors | 22.43 | | 19.13 | 18.55 |
| Drafter | | 18.73 | 13.59 | 15.24 |
| Guard/Watchman | 20.34 | 9.45 | 6.33 | 6.80 |
| Accounting Clerk | | 10.35 | 8.04 | 11.10 |
| Secretary | | 13.31 | 8.86 | 11.87 |
| Switchboard Operator | | 8.17 | 7.10 | 8.53 |
| Payroll Clerk | | 11.13 | 8.14 | 11.13 |

Source: Alaska Wage Rates 1987, BLS Area Wage Survey, Alaska, July 1987, "Prevailing Wages," 1987, Labor Standards and Safety, Alaska Department of Labor

Also, rural areas in general tend to have higher wages than the major metropolitan area of Anchorage and the Interior region, which is mostly comprised of Fairbanks.

Wages reported for professional and technical workers in Anchorage and the Interior are compared in Table 7. With the exception of registered nurses, surveyors, and social workers, all of the occupations which were reported in both areas showed higher wages in Anchorage. This trend could be the result of a higher demand for advanced experience and skill levels needed for the more complex operations in corporate headquarters, which are often located in Alaska's largest city.

A contractor, or subcontractor, that does work on public construction in Alaska, as defined by AS 36.95.010(3), must pay specified wage rates. These rates are established by the Alaska Department of Labor as "prevailing" wages for work of a similar nature in the region in which the work is done. Currently, a wage determination is made for two geographic regions of the state: north of 63 degrees north latitude and south of 63 degrees north latitude.

The methodology used by the department to determine the wages is an eclectic sample of construction contractors surveyed for occupational wages. Alaska Administrative Code 30.050(b) stipulates that "In determining the prevailing wage rate . . . the department will consider the prevailing wage that represents the majority penetration for each work classification." This is interpreted to mean that if there is one wage, accurate to the penny, such as a union scale, for 51% of those surveyed in an occupation, then that wage is determined to be the prevailing wage. In the absence of this condition, the prevailing wage is calculated using an adjusted arithmetic mean of each occupation's wages collected in the sample.

The occupations affected by these "prevailing" wages are termed Laborers, Mechanics, and Field Surveyors. They include specializations of common crafts such as, Truck Driver: Turn-O-Wagon (not self-loading) or Painter: Steeplejack and Tower. Table 8 provides a few comparisons between prevailing wage and the other methodologies.

## Summary

Each of the sources of wage information described above provides a different snapshot of the current Alaska wage scene. Job Service wage data shows that employers' wage offers for some occupations have climbed over the past year, but many others have fallen, especially wage offers for clerical jobs in Anchorage. BLS wage surveys show that wages for some occupations are volatile, and others are paid less than their counterparts in the Seattle, Washington area. Alaska Wage Rates 1987, the annual survey by Research and Analysis, reports that wages for professional and technical workers tend to be higher in Anchorage than in the Interior. "Prevailing wages" are required to be paid to those workers who work on public construction projects which are covered by statute.

Have wage rates in Alaska dropped? This discussion has pointed to areas where they have—and haven't. The Alaska labor market has been dynamic since at least the pipeline construction days. Many labor services are traded in an open market which is influenced by the forces of supply and demand, just like any other commodity. These labor services are often distinct, without close substitutes, and therefore traded in narrowly-defined markets. Each market may not respond identically to a decline in the price of oil, so wages may rise and fall independently, although Alaska history in this decade generally has seen a steady rise in the nominal wage of most occupations. Without large-scale, costly surveys there is no certain measure of the average occupational wage rate, and the definitive answer to the question about changes in wage rates remains elusive.

**For More Information:**

Information on wage rates for job orders with Alaska Job Service are published in *Alaska Wage Rates, 1987.* To receive a copy of this publication contact:

Research and Analysis Section
Alaska Department of Labor
P.O. Box 25501
Juneau, Alaska 99802-5501.

*Area Wage Surveys* are available in whole or in part from:

Bureau of Labor Statistics
Publications Sales Center
P.O. Box 2145
Chicago, IL 60690

A list of the prevailing wage rates may be obtained from:

Labor Standards and Safety Division
P.O. Box 630
Juneau, Alaska 99811

# Alaska's Employment Scene

**By Greg Huff**

Wage and salary employment figures for May showed that employment was down 1.8% compared to year-ago figures. This is the largest over-the-year decline since last November. In addition, the seasonal employment increase between April and May was anemic—increasing by only 4,400 jobs compared to 7,100 a year ago. For the past several months we reported in *Alaska Economic Trends* the moderating of employment losses. In our forecast we stated that employment levels, hence the general economy, would stabilize this year and grow the next. Analyzing May figures raises the question; does the surge in annual employment losses combined with a weak seasonal upturn mean the recession will linger longer than anticipated? Or are the May figures just an anomaly? This is the question this months' employment scene examines.

First, let's take a brief look at the employment trends of the past seven months (Figure 1). From November 1987 to March 1988 employment declines were retracting and were within grasp of showing growth. In fact, our March preliminary estimates, reported in the April issue of *Alaska Economic Trends,* showed year-to-year employment levels increasing by 200 jobs. The following month we revised March's figure to show a decline of 200 jobs. (Revised figures are used in Figure 1.) In April, employment figures show over-the-year employment declines of 1,200 and by May the losses had tripled.

**Table 1**
**Nonagricultural Wage and Salary Employment**
**By Place of Work**
**Alaska**

| | p/ 5/88 | r/ 4/88 | 5/87 | Changes From: 4/88 | 5/87 |
|---|---|---|---|---|---|
| Nonag. Wage & Salary | 208,700 | 204,300 | 212,600 | 4,400 | -3,900 |
| Mining | 9,100 | 9,000 | 8,500 | 100 | 600 |
| Construction | 9,000 | 8,200 | 10,500 | 800 | -1,500 |
| Manufacturing | 14,100 | 13,000 | 13,600 | 1,100 | 500 |
| Seafood Processing | 7,500 | 6,700 | 7,200 | 800 | 300 |
| Lumber & Paper Prod. | 3,400 | 3,200 | 3,100 | 200 | 300 |
| All Other Manufacturing | 3,200 | 3,100 | 3,300 | 100 | -100 |
| Transportation | 17,500 | 16,900 | 17,800 | 600 | -300 |
| Trucking & Warehousing | 2,400 | 2,400 | 2,400 | 0 | 0 |
| Water Transportation | 1,000 | 900 | 1,100 | 100 | -100 |
| Air Transportation | 5,400 | 5,200 | 5,300 | 200 | 100 |
| All Other Transportation | 8,700 | 8,400 | 9,000 | 300 | -300 |
| Trade | 41,100 | 39,400 | 41,300 | 1,700 | -200 |
| Wholesale | 7,400 | 7,200 | 7,400 | 200 | 0 |
| Retail | 33,700 | 32,200 | 33,900 | 1,500 | -200 |
| Gen.Mer.& Apparel | 4,700 | 4,600 | 4,700 | 100 | 0 |
| Food Stores | 6,000 | 5,700 | 5,900 | 300 | 100 |
| Eating & Drinking Pl. | 12,300 | 11,600 | 12,600 | 700 | -300 |
| All Other Retail | 10,700 | 10,300 | 10,700 | 400 | 0 |
| Finance-Ins. & R.E. | 10,700 | 10,600 | 11,300 | 100 | -600 |
| Services | 40,900 | 39,900 | 42,400 | 1,000 | -1,500 |
| Government | 66,300 | 67,300 | 67,200 | -1,000 | -900 |
| Federal | 17,500 | 17,300 | 18,000 | 200 | -500 |
| State | 18,600 | 19,800 | 18,400 | -1,200 | 200 |
| Local | 30,200 | 30,200 | 30,800 | 0 | -600 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1987.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

These losses can be deceptive, however. On the one hand, the recent increase in job losses (April and May) masks the longer term moderation of employment declines. For example, a comparison of May 1986 and 1987 figures show employment declines of 11,600, a whopping 5.2% decline. These losses are nearly three times greater than the decline from May 1987 to May 1988. On the other hand, the rate of employment declines had been shrinking for over a year and suddenly it tripled in one month. These kind of employment losses can startle economic observers because they have, several times in the past, pointed to an underlying weakness in the economy.

Examination of industry data reveals the primary causes for increasing employment losses and the weak seasonal upturn. The key factor is seafood processing employment trends. Secondary factors include government and construction employment trends.

Prior to May, for example, **seafood processing** had been growing annually from 2,000 to 3,000 jobs. This represented from 17% to 60% growth, depending upon the month. By May, the rate of growth was in the single digit range (4.2%), which represented only 300 jobs. Why

## Table 2
# Nonagricultural Wage and Salary Employment
# By Place of Work

## Anchorage

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 5/88 | r/ 4/88 | 5/87 | 4/88 | 5/87 |
| Nonag. Wage & Salary | 97,950 | 97,300 | 101,800 | 650 | -3,850 |
| Mining | 3,450 | 3,500 | 3,200 | -50 | 250 |
| Construction | 4,300 | 4,150 | 5,450 | 150 | -1,150 |
| Manufacturing | 2,300 | 2,150 | 2,400 | 150 | -100 |
| Transportation | 9,200 | 8,850 | 9,550 | 350 | -350 |
| Trucking & Warehousing | 1,450 | 1,350 | 1,650 | 100 | -200 |
| Water Transportation | 350 | 250 | 350 | 100 | 0 |
| Air Transportation | 3,100 | 3,050 | 3,150 | 50 | -50 |
| All Other Transportation | 4,300 | 4,200 | 4,400 | 100 | -100 |
| Trade | 22,850 | 22,550 | 22,950 | 300 | -100 |
| Wholesale | 5,350 | 5,250 | 5,450 | 100 | -100 |
| Retail | 17,500 | 17,300 | 17,500 | 200 | 0 |
| Gen.Merch. & Apparel | 2,300 | 2,300 | 2,300 | 0 | 0 |
| Food Stores | 2,850 | 2,850 | 2,750 | 0 | 100 |
| Eating & Drinking Pl. | 6,750 | 6,650 | 6,850 | 100 | -100 |
| All Other Retail | 5,600 | 5,500 | 5,600 | 100 | 0 |
| Finance-Ins. & R.E. | 7,050 | 7,050 | 7,550 | 0 | -500 |
| Services | 23,400 | 23,150 | 24,250 | 250 | -850 |
| Government | 25,400 | 25,900 | 26,450 | -500 | -1,050 |
| Federal | 10,300 | 10,300 | 10,300 | 0 | 0 |
| State | 6,400 | 6,950 | 6,550 | -550 | -150 |
| Local | 8,700 | 8,650 | 9,600 | 50 | -900 |

## Fairbanks

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 5/88 | r/ 4/88 | 5/87 | 4/88 | 5/87 |
| Nonag. Wage & Salary | 25,350 | 24,750 | 25,700 | 600 | -350 |
| Mining | 100 | 50 | 150 | 50 | -50 |
| Construction | 1,550 | 1,250 | 1,550 | 300 | 0 |
| Manufacturing | 500 | 500 | 500 | 0 | 0 |
| Transportation | 2,100 | 2,000 | 2,200 | 100 | -100 |
| Trucking & Warehousing | 350 | 350 | 350 | 0 | 0 |
| Air Transportation | 350 | 350 | 350 | 0 | 0 |
| All Other Transportation | 1,400 | 1,300 | 1,500 | 100 | -100 |
| Trade | 5,750 | 5,350 | 5,650 | 400 | 100 |
| Wholesale | 700 | 700 | 750 | 0 | -50 |
| Retail | 5,050 | 4,650 | 4,900 | 400 | 150 |
| Food Stores | 800 | 750 | 700 | 50 | 100 |
| All Other Retail | 4,250 | 3,900 | 4,200 | 350 | 50 |
| Finance-Ins. & R.E. | 850 | 850 | 900 | 0 | -50 |
| Services | 5,300 | 5,300 | 5,500 | 0 | -200 |
| Government | 9,200 | 9,450 | 9,250 | -250 | -50 |
| Federal | 2,900 | 2,750 | 2,950 | 150 | -50 |
| State | 3,650 | 4,100 | 3,550 | -450 | 100 |
| Local | 2,650 | 2,600 | 2,750 | 50 | -100 |

## Anchorage-MatSu

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 5/88 | r/ 4/88 | 5/87 | 4/88 | 5/87 |
| Nonag. Wage & Salary | 104,300 | 103,400 | 108,400 | 900 | -4,100 |
| Mining | 3,500 | 3,550 | 3,200 | -50 | 300 |
| Construction | 4,500 | 4,300 | 5,700 | 200 | -1,200 |
| Manufacturing | 2,400 | 2,250 | 2,450 | 150 | -50 |
| Transportation | 9,850 | 9,500 | 10,250 | 350 | -400 |
| Trade | 24,400 | 24,050 | 24,700 | 350 | -300 |
| Finance-Ins. & R.E. | 7,500 | 7,450 | 8,000 | 50 | -500 |
| Services | 24,450 | 24,050 | 25,300 | 400 | -850 |
| Government | 27,700 | 28,250 | 28,800 | -550 | -1,100 |

## Interior

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 5/88 | r/ 4/88 | 5/87 | 4/88 | 5/87 |
| Nonag. Wage & Salary | 29,300 | 28,400 | 29,950 | 900 | -650 |
| Mining | 300 | 200 | 300 | 100 | 0 |
| Construction | 1,700 | 1,350 | 1,750 | 350 | -50 |
| Manufacturing | 500 | 500 | 550 | 0 | -50 |
| Transportation | 2,400 | 2,250 | 2,550 | 150 | -150 |
| Trade | 6,150 | 5,750 | 6,100 | 400 | 50 |
| Finance-Ins. & R.E. | 950 | 900 | 1,000 | 50 | -50 |
| Services | 5,700 | 5,650 | 6,000 | 50 | -300 |
| Government | 11,600 | 11,800 | 11,700 | -200 | -100 |

## Gulf Coast

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 5/88 | r/ 4/88 | 5/87 | 4/88 | 5/87 |
| Nonag. Wage & Salary | 19,850 | 18,750 | 20,200 | 1,100 | -350 |
| Mining | 750 | 750 | 800 | 0 | -50 |
| Construction | 900 | 750 | 1,000 | 150 | -100 |
| Manufacturing | 3,750 | 3,300 | 3,950 | 450 | -200 |
| Seafood Processing | 3,150 | 2,700 | 3,350 | 450 | -200 |
| All Other Manufacturing | 600 | 600 | 600 | 0 | 0 |
| Transportation | 1,250 | 1,250 | 1,300 | 0 | -50 |
| Trade | 3,800 | 3,400 | 3,800 | 400 | 0 |
| Wholesale | 550 | 400 | 550 | 150 | 0 |
| Retail | 3,250 | 3,000 | 3,250 | 250 | 0 |
| Finance-Ins. & R.E. | 550 | 550 | 550 | 0 | 0 |
| Services | 3,350 | 3,150 | 3,350 | 200 | 0 |
| Government | 5,500 | 5,600 | 5,450 | -100 | 50 |
| Federal | 550 | 500 | 550 | 50 | 0 |
| State | 1,500 | 1,600 | 1,450 | -100 | 50 |
| Local | 3,450 | 3,500 | 3,450 | -50 | 0 |

## Southeast Alaska

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 5/88 | r/ 4/88 | 5/87 | 4/88 | 5/87 |
| Nonag. Wage & Salary | 28,900 | 28,150 | 29,300 | 750 | -400 |
| Construction | 1,050 | 900 | 1,200 | 150 | -150 |
| Manufacturing | 4,150 | 3,950 | 4,200 | 200 | -50 |
| Seafood Processing | 800 | 800 | 1,000 | 0 | -200 |
| Lumber & Paper Prod. | 3,100 | 2,950 | 3,000 | 150 | 100 |
| All Other Manufacturing | 250 | 200 | 200 | 50 | 50 |
| Transportation | 2,100 | 2,000 | 2,100 | 100 | 0 |
| Trade | 4,450 | 4,300 | 4,650 | 150 | -200 |
| Wholesale | 400 | 400 | 400 | 0 | 0 |
| Retail | 4,050 | 3,900 | 4,250 | 150 | -200 |
| Finance-Ins. R.E. | 1,100 | 1,100 | 1,050 | 0 | 50 |
| Services | 4,650 | 4,450 | 4,750 | 200 | -100 |
| Government | 11,250 | 11,300 | 11,300 | -50 | -50 |
| Federal | 1,950 | 1,900 | 1,950 | 50 | 0 |
| State | 5,100 | 5,200 | 5,050 | -100 | 50 |
| Local | 4,200 | 4,200 | 4,300 | 0 | -100 |

would seafood processing employment growth decline so rapidly?

The answer is off-season increases in seafood processing employment (see Figure 2). In other words, employment in that industry increased during the month opposite the peak salmon season (June to September). The key to this trend is the fast developing bottomfishery. This segment of the industry had strong over-the-year employment growth until May. Combined with a good herring fishery earlier in the year, seafood processing showed unusual strength through April. Since that time, activity has slowed until preparation for the salmon season begins.

Seafood processing employment this summer will register only small, if any, over-the-year gains. Hence, the extra nudge the industry provided to total employment levels will be absent during the summer, but will again present itself in October.

The higher levels of off season processing employment also impacted April to May hiring trends. Because of their higher than normal April employment levels, the processors hired fewer additional workers to meet May personnel needs. For example, month-to-month employment increases this year were 1,100 compared to 1,900 last year, but employment remains above that of a year ago. Hence, less than the normal number of seasonal hires this May did not reflect a weak industry. In fact, it represents just the opposite.

The **government** employment figures added their own twist into May's employment scene. Last year, for example, the net result of seasonal hiring and layoffs by the government, was a decline of 300 jobs from April to May (an increase of 400 in federal and local government jobs, offset by a 1,100 decline in state government). In contrast, government employment this May declined by 1,000 (200 increase in federal jobs, combined with a 1,200 decline in the state and no change for local government). For the most part, these figures are due to the timing and magnitude of seasonal employment shifts.

The cumulative effects of lower revenues will have negative impacts on local government during the next year. The stretching of local government revenues will eventually make its way into the employment figures. The employment declines will depend upon how local governments wrestle with less operating revenue dollars. State government with its slightly greater operating budget will have some employment gains through 1988. In fact, state government employment for the past several months before May had already begun to recover. Federal civilian employment will stay relatively stable. In summary, for the remainder of the year state government employment will offset local government layoffs and federal government employment will remain neutral.

Languid seasonal increases in the **construction** industry also contributed to the weak seasonal increase in total employment levels for May. Construction employment always increases in May, even during the worst of times, but this years increase was minimal at best. For example, construction employment increased by 800 this year from April to May compared to 1,300 last year. Unlike seafood processing and government the declines are not primarily caused by timing, but are signs of a weak and

Figure 1
Alaska Employment Percent Change
November 1987 - May 1988

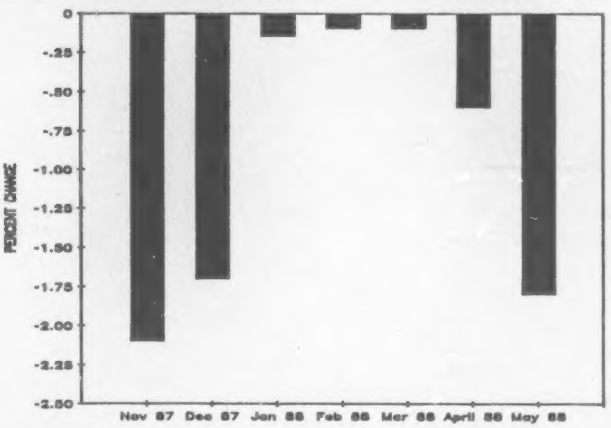
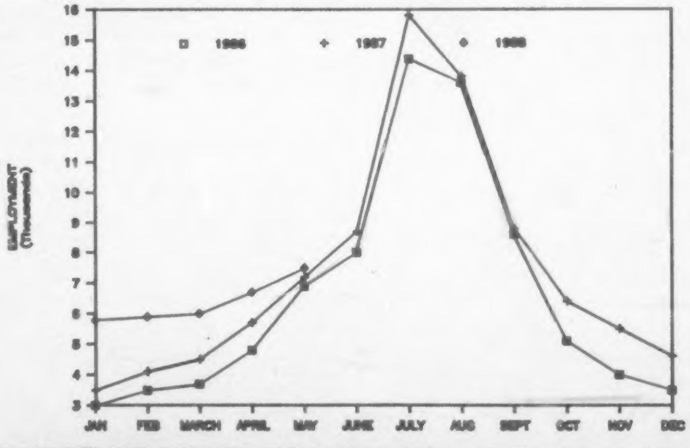


Figure 2
Alaska Seafood Processing Employment
January 1986 - May 1988



## Table 3
## Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 5/88 | R/ 4/88 | 5/87 | P/ 5/88 | R/ 4/88 | 5/87 | P/ 5/88 | R/ 4/88 | 5/87 |
| Mining | $1,177.02 | $1,202.67 | $1,126.17 | 48.9 | 49.8 | 47.8 | $24.07 | $24.15 | $23.56 |
| Construction | 1,022.17 | 1,001.61 | 957.59 | 41.2 | 41.1 | 39.8 | 24.81 | 24.37 | 24.06 |
| Manufacturing | 459.73 | 473.40 | 508.04 | 36.4 | 37.1 | 42.8 | 12.63 | 12.76 | 11.87 |
| Seafood Processing | 284.23 | 302.12 | 319.49 | 31.9 | 33.2 | 41.6 | 8.91 | 9.10 | 7.68 |
| Lumber & Paper Prod | 654.31 | 642.82 | 721.18 | 44.3 | 43.2 | 46.2 | 14.77 | 14.88 | 15.61 |
| Trans., Comm. & Util. | 551.20 | 581.89 | 570.02 | 34.3 | 36.3 | 36.1 | 16.07 | 16.03 | 15.79 |
| Trade | 366.30 | 376.87 | 361.86 | 33.0 | 33.8 | 32.6 | 11.10 | 11.15 | 11.10 |
| Wholesale | 528.43 | 528.63 | 505.59 | 38.6 | 39.1 | 38.1 | 13.69 | 13.52 | 13.27 |
| Retail | 311.31 | 324.16 | 313.14 | 31.1 | 32.0 | 30.7 | 10.01 | 10.13 | 10.20 |
| Finance-Ins. & R.E | 383.07 | 393.70 | 379.22 | 33.9 | 35.5 | 33.5 | 11.30 | 11.09 | 11.32 |

Benchmark March 1987

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

declining industry. This sector will be among the last of the economic sectors to recover from the recession.

In the end analysis, May's figures do not indicate a real deterioration in the Alaska employment scene, but rather a combination of anomalies. The one major exception is the construction industry. Employment trends in that sector are deviating from the rest of the economy. Most, if not all, industries will recover long before the ailing construction industry.

Another indicator suggesting that the Alaskan economy is on the recovery road is the change in unemployment figures. In May, the statewide rate fell to 9.4%, a four-tenths of a percentage point decline from April's rates (Table 4). More significantly, compared to last May the rate has fallen nearly two percentage points. This is the lowest unemployment rate for May since 1981.

### Regional Employment Picture

May employment trends varied from region to region depending upon their industry mix. One pattern is clear in the May figures. The apparent employment trend swings were greatest in those regions with the highest concentration of manufacturing employment.

In fact, the **Gulf Coast** and **Southeast** regions had been experiencing over-the-year employment gains in 1988 until May. In the Gulf Coast region, growth was essentially due to the rapidly expanding bottom fish processing employment. In the Southeast region, it was a combination of seafood processing and lumber and pulp employment increases which led to overall employment growth. In May, growth in those industries slowed and in some cases ceased, causing total employment figures to show over-the-year declines. However, the change in the employment trends in May, from growth to decline, is not a sign that their economies were heading into a downward spiral. Instead, the May trends were an aberration caused mainly by seasonal fluctuations of the manufacturing industries (seafood processing and lumber and pulp).

The unemployment rate for these two regions support the view that their economies are on the recovery path from the recession. Gulf Coast and its subregions experienced seasonal and annual improvements in their unemployment rates. The Southeast and its subregions overwhelmingly saw improvement in both seasonal and annual unemployment rates.

The wage and salary employment trends for the **Fairbanks/Interior** region changed insignificantly in May. In this region the seafood processing employment phenomena did not exist. However, with employment growth in state government and increases in military population the secondary industries are beginning to show over-the-year employment gains particularly the trade industry. The unemployment rates for the entire Interior region fell nearly a percentage point between April and May and was 3.5 points below the year-ago rate. Unemployment rates in this region have not been this low in May since 1982.

The employment levels for **Anchorage** and **MatSu** areas experienced an acceleration in the over-the-year decline in May, but not as severe as statewide. Since the region has little seafood processing employment the impacts of the off season phenomenon were minimal. It was the anemic construction employment upturn which caused over-the-year employment comparisons to be less favorable than the last few months. While the Anchorage/MatSu region's employment figures show over-the-year declines of nearly 4%, the worst declines in the state, the region is slowly joining the rest of the state in a recovery from the recession. As with most regions in the state the

## Table 4
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 5/88 | R/ 4/88 | 5/87 | P/ 5/88 | R/ 4/88 | 5/87 | P/ 5/88 | R/ 4/88 | 5/87 | P/ 5/88 | R/ 4/88 | 5/87 |
| Alaska Statewide ....... | 247,493 | 245,932 | 254,026 | 23,286 | 24,167 | 29,125 | 9.4 | 9.8 | 11.5 | 224,207 | 221,765 | 224,901 |
| Anch.-MatSu Region .... | 127,917 | 128,031 | 133,155 | 10,903 | 11,083 | 13,871 | 8.5 | 8.7 | 10.4 | 117,014 | 116,948 | 119,284 |
| Anchorage Borough .... | 113,142 | 113,604 | 117,211 | 8,553 | 8,723 | 10,843 | 7.6 | 7.7 | 9.3 | 104,589 | 104,881 | 106,368 |
| MatSu Borough ....... | 14,775 | 14,427 | 15,944 | 2,350 | 2,360 | 3,028 | 15.9 | 16.4 | 19.0 | 12,425 | 12,067 | 12,916 |
| Gulf Coast Region ...... | 27,808 | 26,943 | 27,930 | 3,245 | 3,552 | 3,691 | 11.7 | 13.2 | 13.2 | 24,563 | 23,391 | 24,239 |
| Kenai Peninsula Bor ... | 17,599 | 17,120 | 17,989 | 2,258 | 2,511 | 2,850 | 12.8 | 14.7 | 15.8 | 15,341 | 14,609 | 15,139 |
| Kodiak Island Bor ..... | 6,164 | 5,920 | 5,991 | 508 | 534 | 410 | 8.2 | 9.0 | 6.8 | 5,656 | 5,386 | 5,581 |
| Valdez-Cordova ........ | 4,045 | 3,903 | 3,950 | 479 | 507 | 431 | 11.8 | 13.0 | 10.9 | 3,566 | 3,396 | 3,519 |
| Interior Region ......... | 37,378 | 36,921 | 38,591 | 4,675 | 4,939 | 6,135 | 12.5 | 13.4 | 15.9 | 32,703 | 31,982 | 32,456 |
| Fairbanks North Star Br | 32,006 | 31,580 | 33,048 | 3,751 | 3,948 | 5,005 | 11.7 | 12.5 | 15.1 | 28,255 | 27,632 | 28,043 |
| Southeast Fairbanks ... | 2,242 | 2,219 | 2,285 | 334 | 353 | 392 | 14.9 | 15.9 | 17.2 | 1,908 | 1,866 | 1,893 |
| Yukon-Koyukuk ....... | 3,130 | 3,122 | 3,258 | 590 | 638 | 738 | 18.8 | 20.4 | 22.7 | 2,540 | 2,484 | 2,520 |
| Northern Region ....... | 8,318 | 8,341 | 8,272 | 829 | 819 | 1,096 | 10.0 | 9.8 | 13.2 | 7,489 | 7,522 | 7,176 |
| Nome ............... | 3,228 | 3,258 | 3,223 | 379 | 396 | 493 | 11.7 | 12.2 | 15.3 | 2,849 | 2,862 | 2,730 |
| North Slope Borough .. | 2,912 | 2,903 | 2,845 | 155 | 134 | 203 | 5.3 | 4.6 | 7.1 | 2,757 | 2,769 | 2,642 |
| Northwest Arctic Bor ... | 2,178 | 2,180 | 2,204 | 295 | 289 | 400 | 13.5 | 13.3 | 18.1 | 1,883 | 1,891 | 1,804 |
| Southeast Region ....... | 33,409 | 33,317 | 34,092 | 2,470 | 2,641 | 3,153 | 7.4 | 7.9 | 9.2 | 30,939 | 30,676 | 30,939 |
| Haines Borough ....... | 870 | 862 | 884 | 90 | 88 | 104 | 10.3 | 10.2 | 11.8 | 780 | 774 | 780 |
| Juneau Borough ...... | 14,589 | 14,489 | 14,871 | 794 | 811 | 1,076 | 5.4 | 5.6 | 7.2 | 13,795 | 13,678 | 13,795 |
| Ketchikan Gateway Br | 6,555 | 6,589 | 6,790 | 442 | 528 | 677 | 6.7 | 8.0 | 10.0 | 6,113 | 6,061 | 6,113 |
| Pr. of Wales-Outer Ktch | 2,569 | 2,564 | 2,577 | 352 | 366 | 360 | 13.7 | 14.3 | 14.0 | 2,217 | 2,198 | 2,217 |
| Sitka Borough ........ | 3,954 | 3,860 | 4,063 | 244 | 181 | 353 | 6.2 | 4.7 | 8.7 | 3,710 | 3,679 | 3,710 |
| Skagway-Yakutat-Ang | 1,613 | 1,706 | 1,568 | 243 | 348 | 198 | 15.1 | 20.4 | 12.6 | 1,370 | 1,358 | 1,370 |
| Wrangell-Petersburg .... | 3,259 | 3,247 | 3,339 | 305 | 319 | 385 | 9.4 | 9.8 | 11.5 | 2,954 | 2,928 | 2,954 |
| Southwest Region ...... | 12,663 | 12,379 | 11,986 | 1,164 | 1,133 | 1,179 | 9.2 | 9.2 | 9.8 | 11,499 | 11,246 | 10,807 |
| Aleutian Islands ....... | 3,458 | 3,362 | 3,245 | 147 | 124 | 133 | 4.3 | 3.7 | 4.1 | 3,311 | 3,238 | 3,112 |
| Bethel .............. | 4,922 | 4,800 | 4,705 | 510 | 485 | 559 | 10.4 | 10.1 | 11.9 | 4,412 | 4,315 | 4,146 |
| Bristol Bay Borough ... | 439 | 447 | 406 | 40 | 57 | 31 | 9.1 | 12.8 | 7.6 | 399 | 390 | 375 |
| Dillingham ........... | 2,212 | 2,201 | 2,165 | 157 | 192 | 234 | 7.1 | 8.7 | 10.8 | 2,055 | 2,009 | 1,931 |
| Wade Hampton ....... | 1,632 | 1,569 | 1,465 | 310 | 275 | 222 | 19.0 | 17.5 | 15.2 | 1,322 | 1,294 | 1,243 |

P/ Preliminary R/ Revised 1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

Anchorage/MatSu unemployment rate fell from April to May and more significantly was nearly two percentage points below the May 1987 rate. The 8.5% rate was the lowest unemployment rate since 1985.

### Conclusion

For most of a year Alaska's employment declines had been moderating. Indeed, the March 1988 figures were within grasp of showing employment increases. The first impression gained from the May figures was that the improvement had run out of gas and another period of increased employment losses was looming around the corner. An industry analysis reveals, however, that most of the declines were caused by anomalies in seafood processing and government trends.

Alaskans will continue to see slow improvements in the economy through 1988. Indeed some regions have already had a taste of employment growth, while others, particularly Anchorage/MatSu, have a ways to go before they catch the rest of the state in the improvement process. The major short term obstacle for many regions will be how they cope with local government budget problems.

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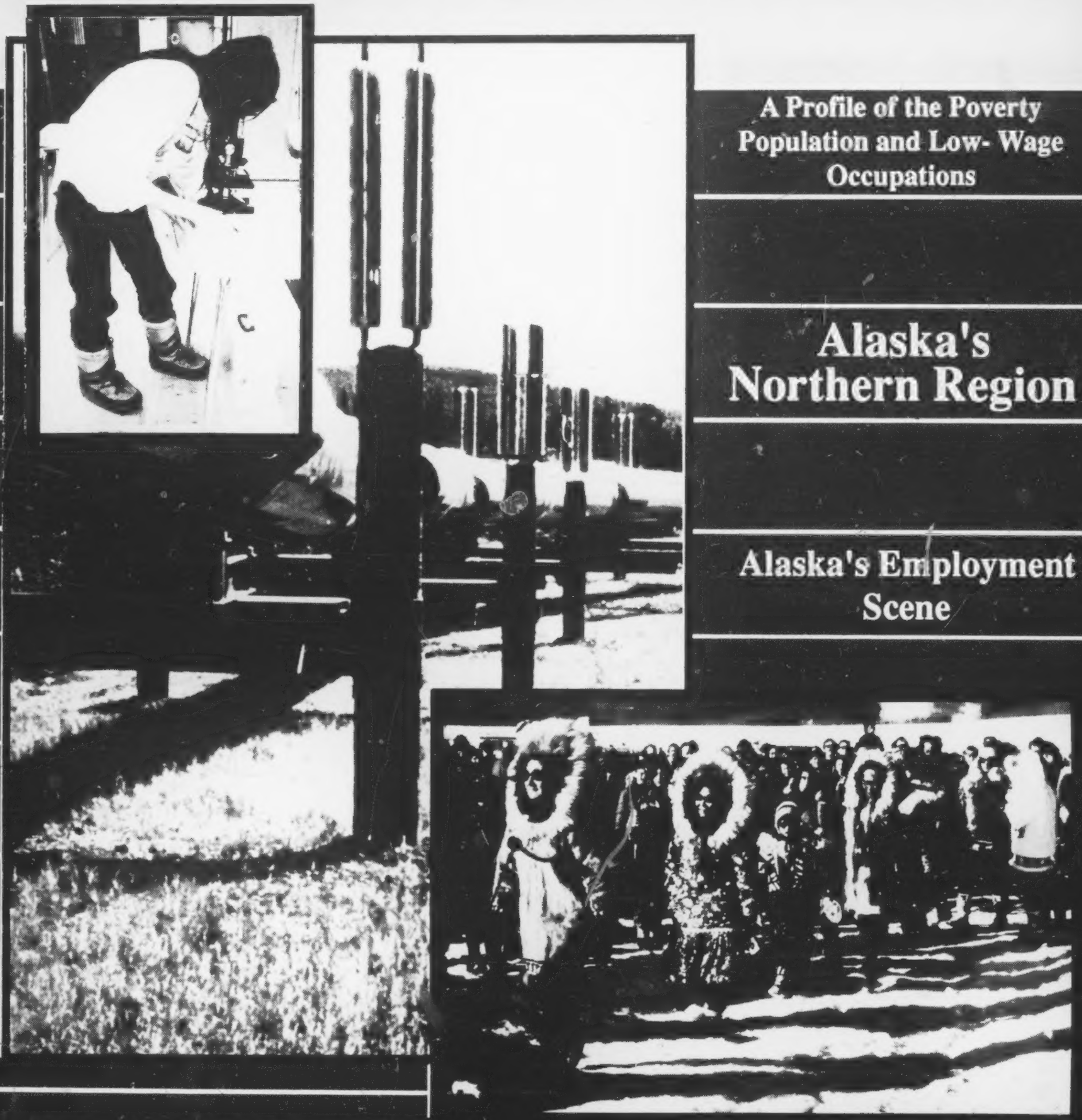

## A Profile of the Poverty Population and Low- Wage Occupations

## Alaska's Northern Region

## Alaska's Employment Scene

# Alaska Economic Trends

*Steve Cowper*, Governor, State of Alaska

*Jim Sampson*, Commissioner
Department of Labor

*Frank Spargo*, Director
Administrative Services

*Chuck Caldwell*, Chief
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*John Boucher*, Editor

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**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

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**We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact John Boucher, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.**

# A Profile of the Poverty Population and Low-Wage Occupations

**By Dr. Terry Elder**

## Introduction

In recent months, the federal government and some state governments have focused on the issue of poverty in the United States, and on the proposal to increase the federal minimum wage, which has not been increased above the $3.35 level it reached in 1981. While the federal debate continues, some states, such as California, already have enacted increases in their state's minimum wage. One example of the current debate in Congress is reported in the March 16, 1988, issue of the *Employment and Training Reporter*. The article describes H.R. 1834, which passed out of the House Education and Labor Committee on March 10 by a vote of 18-14. The bill would raise the federal minimum wage by $1.70 to $5.05 in four steps: $.50 effective January 1, 1989; $.40 on January 1 of 1990 and 1991; and $.40 on December 31, 1991. The bill does not include the sponsor's, Rep. Augustus Hawkins (D-CA), desire to index the minimum wage to 50% of the national average hourly earnings.

The controversy centers around whether or not increasing the minimum wage is an effective tool in lifting people out of the grasp of poverty. Some people, including many labor leaders, support an increase on the basis that it helps the "working poor" and that honest labor should provide a "livable" wage. Other people, including many academic economists, oppose an increase to the minimum wage. They believe an increase would result in less employment for many who live in poverty, and that as an antipoverty tool the minimum wage is at best inefficient and at worst counterproductive.

**In 1986, the poverty threshold for a family of four was $11,203.**

The purpose of this article is not to take sides in the issue of the minimum wage, but to discuss the demographic characteristics of the poverty population in the United States and Alaska, using Bureau of the Census data, and to consider the occupational groupings which appear to be associated with poverty in Alaska. The objectives of the article are to focus attention on the scope of the problem and to understand the characteristics of the people who are most impacted.

This article first will discuss the composition of the population living in poverty nationally, and then will discuss the poverty population in Alaska. Most of the percentages referred to in the discussion of poverty in Alaska are based on the national definition of poverty-level income. Many people believe that given the high cost-of-living in Alaska, 125% of the national definition of poverty-level income would produce a more comprehensive view of Alaska's poverty population. While this would increase the number of persons living in poverty, it would not change the composition of the poverty population enough to make a difference in the observations made in this article.

The observations about poverty in this report are based on data which is reported by the Bureau of the Census as a result of the 1980 census. No thorough, reliable information on poverty on a state level is available since the census. The Bureau agrees that broad observations based on that census are still valid today. The next section describes the demographic characteristics of the people living below the poverty threshold in the nation, according to the 1980 census.

Assuming a current population of 540,000 . . . there would be about 57,800 persons in poverty in Alaska.

## The National Profile of Poverty

The Census Bureau each year estimates the money income which it calls the "poverty threshold." This is the amount of money income which the Bureau believes is necessary to provide the basics. It is based on estimated food requirements, and the percentage of income spent on food. For this reason, the threshold differs depending on the number of persons living in the family. In 1979, the poverty threshold for a family of four was $7,412. If all of this income was provided by one person, earning wages, it equates to a full-time wage of $3.56/hour for a 40-hour workweek. In 1986, the poverty threshold for a family of four was $11,203 due to increases in consumer prices. Again assuming one person provides the income, only from wages, the full-time wage is about $5.39/hour.

That is a simplification, of course, since not all family income is generated from wages, and not all family income is provided by one person in a family unit. While about 83% of income of all families is wage income, for those below the poverty threshold wage income provides only about 45% of income. Some other sources of family income are social security income, pension and investment income, and public assistance. A thorough analysis of the incidence of poverty would require investigation of all of these sources of income and of hourly wage rates as well as hours worked. However, for the descriptive objectives of this article, it may be assumed that a wage rate of about $5.39/hour for a full-time, 40-hour/week job was probably slightly above the poverty threshold in 1986. This wage rate will be used later in describing occupations which tend to be associated with poverty in Alaska, but first, the characteristics of the national poverty population will be discussed.

About 11.2% of all persons over 14 years of age (and 13% of all persons lived below the poverty threshold in 1979. More recent national data suggest this percentage has increased slightly. Of those living in poverty, 69.6% were white, 62.9% were female, 20.7% were less than 22 years old, and 19.8% were over 64 years old. Comparing the sex, race, and age characteristics of the poverty population to those characteristics of the population as a whole, it is found that those in poverty tended to be more female, more nonwhite, and either younger or older than the general population.

Of all persons below the poverty level, about 40% worked in 1979 and 60% did not work. About 24% worked full time, and 16% worked part time. The average number of weeks worked was 30.2. Compared to the total population, a substantially larger percentage of those in poverty did not work (60% versus 32%), and a smaller percentage worked full time (24% versus 52%). Those in poverty averaged only about 71% of the number of weeks worked by the total population. Slightly more than one-third of the people in poverty who worked less than 50 weeks did so because they were unable to find work. Of all persons in poverty who did not work, only about 7.1% reported that they did not work because they were not able to find work. Other reasons cited for not working included: keeping house, illness, attending school, and retired from the work force.

There were substantial differences between males and females below the poverty level. As a percentage, females were more likely to live in poverty (13.5% of all females versus 8.7% of all males). Males were more likely than females to have ties to the labor force. Slightly more than half of the males below poverty worked in 1979 compared to about one-third of females below poverty. Males were much more likely to work full time; almost half of the males in poverty who worked less than 50 weeks did so because they could not find work. In comparison about one-fourth of females were impoverished and could not find work. Of those in poverty, 46% of males did not work compared to 68% of females. Of those who did not work, about 12% of males and 5% of females did not work because they could not find work.

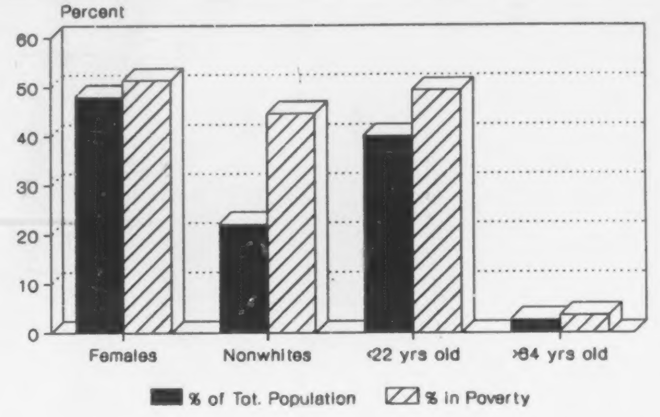
Black males and females were three times more likely than white males and females to live in poverty. All four of these social groups below the poverty threshold worked substantially fewer hours per week than their group averages. A more detailed analysis of racial differences is beyond the scope of this article.

### The Alaska Profile of Poverty

The 1980 census reports that about 42,000 persons in Alaska lived below the national poverty income level. That represented about 10.7% of the state's estimated total population. Considering a poverty threshold equal to 125% of the national level, there were 55,900 persons in poverty in 1979 (a poverty rate of 14.4%). Assuming a current population of 540,000, if everything else is the same today, there would be about 57,800 persons in poverty in Alaska and 79,400 people would be living below 125% of the national poverty income level.

Table 1 shows the percentage of the poverty population in Alaska, at the

Figure 1
Poverty Incidence in Alaska—Select Groups



source: 1980 Census Data

### Table 1
### Demographic Characteristics of Alaska Poverty Population at Various Levels of Poverty, 1979

| Characteristic | Percent Poverty Population: 100% of Threshold Level | Percent Poverty Population: 125% of Threshold Level | Percent Total Population |
|---|---|---|---|
| Sex | | | |
| Female | 51.4% | 50.8% | 48.0% |
| Male | 48.6 | 49.2 | 52.0 |
| Race | | | |
| White | 55.4 | 56.2 | 77.8 |
| Native | 38.9 | 37.1 | 16.2 |
| Other | 5.7 | 6.7 | 6.0 |
| Location | | | |
| Rural | 54.9 | 53.0 | 35.9 |
| White % of rural | 43.0 | 43.2 | 66.2 |
| Native % of rural | 55.6 | 55.4 | 31.8 |
| Other % of rural | 1.4 | 1.4 | 2.0 |
| Nonrural | 45.1 | 47.0 | 64.1 |
| White % of nonrural | 70.4 | 70.9 | 84.2 |
| Native % of nonrural | 18.5 | 16.6 | 7.5 |
| Other % of nonrural | 11.1 | 12.5 | 8.2 |
| Age | | | |
| Under 22 years old | 49.3 | 49.9 | 40.0 |
| Age 22-63 | 47.1 | 46.5 | 57.3 |
| Over 64 years old | 3.6 | 3.6 | 2.7 |
| Selected Family Characteristics | | | |
| Live in family | 75.1 | 77.8 | 85.9 |
| Unrelated individuals | 24.9 | 22.2 | 14.1 |
| Related children under 18 | 37.1 | 38.3 | 32.9 |

Source: U.S. Department of Commerce, Bureau of the Census, 1980 Census, *Detailed Population Characteristics, Alaska* PC80-1-D3, Table 245.

national poverty income threshold and at 125% of the national poverty income threshold, with various demographic characteristics, and the percentage of the total population with those characteristics.

While about 10.7% of persons in Alaska were below the poverty threshold, 7.7% of whites and 25.7% of Natives were in that category. The percentage was a little higher in rural areas, with 10.7% of rural whites and 28.7% of rural Natives in poverty. The poverty rate was higher among unrelated individuals than among families. About 86% of persons lived in families, and 9.4% of these persons lived in poverty. About 14% of persons were unrelated individuals, and 19% of these were in poverty. The poverty rate of rural, unrelated Natives was 46.6%. The tendency to have higher poverty rates among rural and Native persons holds both for persons in families and for unrelated individuals. Natives tended to be younger (less than 22 years old) and older (over 64 years old), and tended more to live in families (91% versus 85%) compared to whites.

**Those in poverty tended to be more female, more nonwhite, and either younger or older than the general population.**

The educational attainment of persons in poverty was lower than that of the general population. About 83% of all families were headed by a high school graduate (89% of white families and 45% of Native families). Only about 63% of families in poverty were headed by a high school graduate (79% of white families in poverty and 35% of Native families in poverty). Similarly, unrelated individuals show the same pattern. About 83% of unrelated individuals were high school graduates (87% of whites and 54% of Natives). Only about 67% of unrelated individuals in poverty were high school graduates (76% of whites and 41% of Natives).

The mean income deficit (the mean amount of money income below the appropriate poverty threshold) of a family of four was about $3,200 in 1979. The deficit of Native families was about $340 greater than that of white families, and the deficit of rural families was about $200 greater than the average deficit. Since the poverty threshold is generally based on the cost of food per individual and on the percentage of a total budget which is spent on food, it is logical to conclude that subsistence probably plays a positive role in narrowing the gap between whites and Natives, and between rural and urban persons. It is difficult to imagine subsistence closing the entire gap between money income and the poverty threshold, given the absolute size and the percentage of the gap, and considering the cost of living in rural areas. The Division of Subsistence in the Department of Fish and Game has conducted studies of areas and villages which show that subsistence activities provide an important percentage of the food requirements in those areas. In order to be directly useful in the context of this discussion of poverty, however, a study would have to put a dollar figure on the food source by household, and would have to count the money income by household in order to calculate an "adjusted" family income which would reflect subsistence activities.

About 37.6% of families below the poverty threshold did not have work income in 1979 (34.0% of white families in poverty and 41.7% of Native families in poverty). Also, 42.6% of unrelated individuals (40.2% of white and 50.1% of Native unrelated individuals) did not have work income in 1979. Further, only 1.7% of all families were in poverty when the householder worked over 50 weeks (1.7% of white and 2.6% of Native families), while 19.3% of families were in poverty when the householder worked less than 27 weeks (15.4% of white and 34.4% of Native families).

## A Profile of Low-Wage Occupations in Alaska

Analysis of the occupational groupings of employed householders who lived in families below the poverty threshold, suggests that some occupational groupings are associated more consistently with poverty when compared to other occupational groupings. Those major occupational categories are as follows: private household occupations; sales; administrative support, including clerical; miscellaneous service occupations; farming, fishing, and forestry occupations; and helpers and laborers. The connection of these groups with the occurrence of poverty may be due to relatively low wages, seasonal employment, employment turnover, or any combination of these factors.

These broad occupational groupings are reflected in a list of low-wage employment orders reported by Job Service for the four quarters ending June 30, 1987. As mentioned earlier, one way to define a low wage is to calculate the hourly rate of a full-time job that would provide a family income equal to the poverty threshold (assuming that one person in the family provides the wage income). For a family of four, that hourly rate in 1986, as calculated above, is $5.39. If wage income is required only to equal 82.8% of family income which it does for families with incomes above the poverty threshold, then the poverty-level hourly rate would be $4.46. Job Service reports that about 43% of its orders were for jobs that offered less than $6/hour, and 12% offered less than $5/hour.

A review of the individual occupations and of the occupational groupings suggests that these occupations are often seasonal, require relatively little prior education and training, and are not associated with high training costs, thereby allowing for a higher than average employee turnover rate.

## Conclusion

An analysis of census data reveals that the demographic characteristics of the poverty population in Alaska are similar to those of the national poverty population. The poverty population is composed of unrelated individuals, females, nonwhites, rural citizens, the old and the young in larger proportions than would be expected from the composition of the population as a whole. Since there are more white, nonrural people in the population, in numerical terms the largest group of persons in poverty in Alaska is white, nonrural females. It is also evident, from both national and state data, that those who live in poverty tend to have loose ties to the labor force. Poverty is associated with the absence of work, with the lack of full-time work, and with low-wage occupations which may be seasonal or subject to high employment turnover.

While the debate goes on about the positive and negative aspects of minimum wage legislation as a tool to fight poverty, there is no debate concerning the objective of eliminating poverty and the social ills that accompany it. General economic development which increases job opportunities, especially high-wage opportunities, helps everyone. Education and training help to provide skills to the unskilled people who may have strong ties to the labor force but who cannot qualify for the types of jobs that offer high wages and/or consistent work.

### Table 2
### Low-Wage Jobs Listed with Alaska Job Service (four quarters ending 6/30/87)

| Job Title | Average Wage |
|---|---|
| Grocery Bagger | $4.37 |
| Bus Cleaner | 5.23 |
| Service Station Attendant | 4.97 |
| Cannery Worker | 5.77 |
| Landscaper | 4.93 |
| Day Care Worker | 5.09 |
| House Cleaner | 5.51 |
| Dishwasher | 5.15 |
| Waiter/Waitress | 4.45 |
| Fast Food Worker | 4.07 |
| Merchandise Deliverer | 4.80 |
| General Merchandise Sales | 5.46 |
| Office Helper | 5.57 |
| Clerk | 5.76 |
| Cashier | 5.33 |
| Recreation Leader | 5.44 |

Source: Alaska Department of Labor, Employment Security Division.

References:

Bureau of the Census. *Detailed Population Characteristics: Alaska* Publication PC80-1-D3, Tables 245-250. Washington, D.C.: September 1983.

Bureau of the Census. *Characteristics of the Population Below the Poverty Level: 1980*. Publication P-60, No. 133, Table 14. Washington, D.C.: July 1982.

*Employment and Training Reporter* Manpower Information, Inc., a division of The Bureau of National Affairs, Inc. Washington, D.C.: March 16, 1988, page 638.

# Alaska's Northern Region

**By Neal Fried**

### A Common Thread

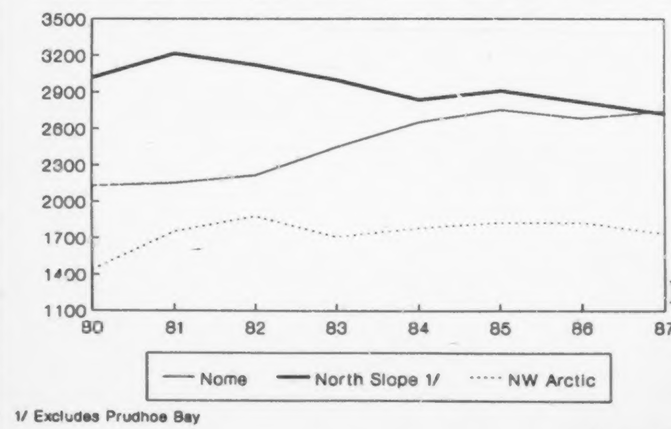
Job opportunities are scarce; subsistence is a way of life; roads connecting the region to the rest of the state are virtually nonexistent; government is the major source of employment; subsurface minerals are abundant; and almost three quarters of its residents are Inupiaq Eskimo. These attributes weave a common thread through the Northern region of Alaska which includes the Nome census area, the Northwest Arctic Borough, and the North Slope Borough.

The region is characterized by small communities. Of the region's 37 communities, 19 have populations of 250 or fewer, and there are only three with more than 1,000 inhabitants. None has a population greater than 3,500. Barrow, Kotzebue, and to a lesser extent Nome operate as administrative and supply centers for the two boroughs and one census area. They are the only communities in the region that provide significant wage and salary employment opportunities to their residents.

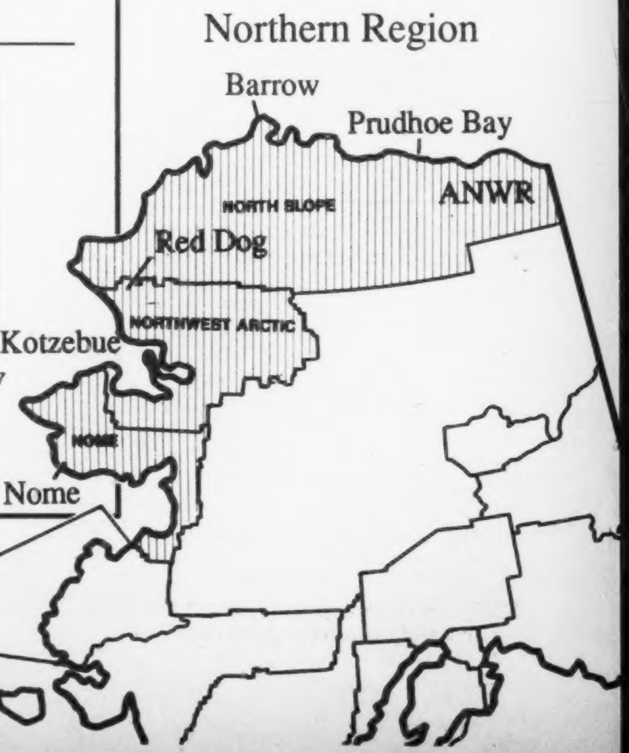
The scarcity of economic and employment opportunities for two-thirds of the region is clearly reflected in per capita income figures. For example, Northwest Arctic Borough's 1986 per capita income of $12,613 ranked 19th in the state (out of 23) and was only 70% of the statewide per capita income of $17,969. Nome did not come in much higher at $13,747. On the other hand the North Slope Borough's per capita income of $21,590 ranked fourth in the state.

Lack of employment opportunities and low incomes have also led to a higher incidence of poverty in the region. The incidence of poverty is more than twice as high in the Northwest Arctic Borough and Nome than statewide (27% and 28% versus 11% for the state). The North Slope Borough has been more fortunate; its rate is similar to the state's.

Figure 1
Northern Region Employment 1980-1987



1/ Excludes Prudhoe Bay

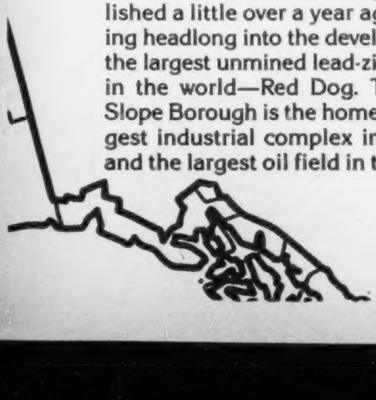


On a positive note, the state's recession did not take as great a toll on the region's employment as it did elsewhere. With the exception of the North Slope Borough, little or no employment losses are evident (figure 1). This is largely because of the region's disproportionately large public sector. The public sector has experienced employment losses, but they have been smaller than losses in the private sector.

The high cost of living and doing business in the Northern region adds an additional economic burden. According to a study commissioned by the state, the cost of living for the Barrow/Kotzebue and Nome areas run 45% and 33% above Anchorage. A Cooperative Extension Service survey put the cost of a weekly food bill for a family of four in Nome at $149 and in Kotzebue at $141, compared to $87 in Anchorage. For Savoonga, one of the region's more remote communities, the costs rose to $202. This is probably a typical price for most of the region's smaller communities.

Subsistence is an economic and employment activity that takes place in the entire region but is not captured in our statistics. A survey conducted in 1974 found that more than 70% of the Northwest Arctic Borough residents rely on subsistence for more than half of their diet. Attempts have been made to quantify this activity in an economic sense, but none has been completely successful. Part of the problem of quantifying the economic value of subsistence is that it is also a cultural activity. Subsistence is a more important source of noncash employment in the region's smaller villages where other employment opportunities are scarce, but it also remains important in the regional centers.

Though all of these areas share many common attributes, they also have their distinct economic identities. Nome for example is the major gold producing region in the state. The Northwest Arctic Borough, established a little over a year ago, is moving headlong into the development of the largest unmined lead-zinc deposit in the world—Red Dog. The North Slope Borough is the home of the largest industrial complex in the state and the largest oil field in the nation.



This article will discuss these three different areas' economies. It will point out their similarities and differences and examine major developments that are, or will be, creating changes in the economic lives of the region's inhabitants.

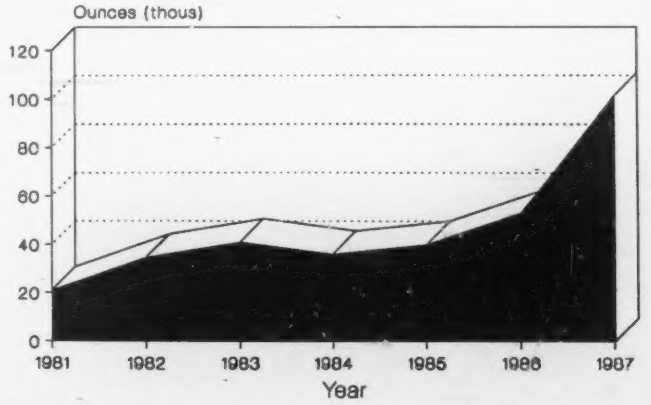
**Nome—Gold's Resurgence**

The City of Nome is reclaiming its historical place as a major gold producer in the state. Gold mining activity in the vicinity of Nome has experienced a major revival. Gold mining employment in the Nome region grew from 62 in 1985 to 144 in 1987. During the summer of 1987, mining employment peaked at 247 in August.

A big share of the employment growth came with the introduction of WestGold's 14-story floating dredge, the *Bima*, in 1986. Brought in from Indonesia, the *Bima* dredges offshore, unlike the other dredges in Nome which mine the ground. WestGold will employ 119 workers this year. WestGold was the largest gold producer in Alaska in 1987. The Alaska Gold Company is the other large gold operator in Nome. In 1986 only one of Alaska Gold's dredges was operational, but in 1987 another dredge was brought on line. In 1987 the western mining district (includes Nome) produced 101,250 ounces of gold compared to 53,000 ounces in 1986 (figure 2).

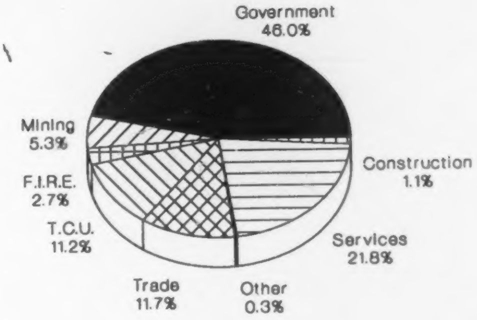
**Gold mining activity in the vicinity of Nome has experienced a major revival.**

Figure 2
Gold Production
Western Mining District 1981-1987



Other large gold mining projects are being considered in the Nome region that may push mining employment higher. WestGold is considering adding an additional floating dredge to operate close to shore. The *Bima* could then be used for deeper water mining, for which it was designed. Other companies such as Aspen Exploration Corporation have beefed up their prospecting in the area and are investigating the possibility of hard rock gold production. The federal government is making plans to lease offshore grounds (beyond the three-mile limit) for gold mining and other mineral production) a first for Alaska. As long as gold prices remain strong, the growth prospects for the gold mining industry in Nome remain bright.

Figure 3
Nome Census Area
Employment by Industry — 1987



### The Rest of the Economy

Gold mining certainly is not Nome's only economic activity, nor is it the dominant economic force. Government is Nome's number one employer—it employs 46.0% of the area's wage and salary work force (figure 3). The federal sector is relatively small, but the state and particularly the local sector are big employers. Some employment was lost on the state level in 1987 because of oil revenue declines. After many years of strong growth in local government, it began to fall victim to declining oil revenues in 1986-87, but by late 1988 these numbers should stabilize.

Unlike the rest of the state's employment, which plummeted in 1986 and 1987, Nome's employment remained relatively stable. The increase in gold activity is one key factor. Its large public sector is the other reason Nome was able to avert the declines. Although the public sector has lost ground, the losses have been smaller than in the private sector.

**Table 1**
**Nome Census Area**
**Employment by Industry**
**1980-1987**

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Total | 2,130 | 2,154 | 2,216 | 2,447 | 2,649 | 2,751 | 2,682 | 2,740 |
| Mining | * | * | * | * | * | 62 | 89 | 144 |
| Construction | 33 | 39 | 65 | 88 | 86 | 55 | 35 | 30 |
| Manufacturing | * | * | * | * | * | * | * | * |
| Trans., Comm. & Util. | 143 | 176 | 160 | 173 | 186 | 201 | 231 | 307 |
| Wholesale Trade | 0 | 0 | 0 | 0 | 0 | * | * | * |
| Retail Trade | 249 | 286 | 303 | 294 | 303 | 311 | 327 | 321 |
| Finance-Ins. & R.E. | 120 | 54 | 54 | 79 | 83 | 103 | 76 | 73 |
| Services | 602 | 575 | 468 | 512 | 536 | 582 | 583 | 596 |
| Government | 849 | 913 | 1,018 | 1,194 | 1,346 | 1,424 | 1,328 | 1,261 |
| Federal | 161 | 145 | 132 | 157 | 134 | 111 | 99 | 94 |
| State | 178 | 193 | 220 | 244 | 243 | 246 | 242 | 215 |
| Local | 511 | 575 | 667 | 793 | 969 | 1,067 | 987 | 952 |
| Miscellaneous | * | * | * | * | * | * | * | * |

*Nondisclosable

Source: Alaska Department of Labor, ES-202 Files.

Recent employment trends have been better in Nome than elsewhere in the state but employment opportunities are not necessarily plentiful. Employment is often seasonal, and in most of the area's smaller communities opportunities are scarce. Outside of Nome and Unalakleet, the location of Bering Sea School District headquarters, little wage and salary employment exists. The labor force participation rate for the Nome area is 53%, nearly 20 points below the statewide average. The unemployment rate in Nome has consistently remained higher than the statewide average, as illustrated in figure 4. Income and poverty figures mentioned above attest to the lack of employment opportunities. It will take much more than new gold production to provide the Nome area with an adequate economic base able to generate healthy levels of employment.

## The North Slope Borough— The Oil Producer

If any economy stands out as unique in Alaska, it is the North Slope Borough (NSB). The borough is made up of eight communities, seven of which have populations of 600 or fewer, and 77% of the inhabitants are Inupiaq Eskimo. Barrow, the administrative and economic center of the borough, has a population of 3,075. Then there is the other segment of the borough—the largest self-contained petroleum/industrial enclave (Prudhoe Bay) in Alaska. Approximately 5,237 workers live and work in this complex. According to University of Alaska estimates, only 30 North Slope Borough residents worked in the oil industry—the rest came from elsewhere in the state and the nation. This mix has created incredible economic and cultural dynamics in this sparsely populated part of the state.

Although few North Slope residents work in Prudhoe Bay, the borough accrues substantial economic benefits from the site via taxation and other business ventures. In 1987 the borough government collected $249 million in oil property taxes from the complex, which represents approximately two-thirds of the borough's budget. This rich tax base has enabled the borough to provide employment opportunities, services, and a standard of living unparalleled in arctic Alaska.

**University of Alaska researchers estimated the borough provided approximately 71% of borough resident employment in 1984.**

This source of tax revenues has made the NSB the central economic player in the area. University of Alaska researchers estimated the borough provided approximately 71% of borough resident employment in 1984.[1] That figure includes employ-

**Table 2**
**North Slope Census Area**
**Employment by Industry**
**1980-1987**

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Total | 6,118 | 8,761 | 9,638 | 10,318 | 9,581 | 9,107 | 8,642 | 7,956 |
| Mining | 2,776 | 3,860 | 3,564 | 3,324 | 3,605 | 3,915 | 3,813 | 3,925 |
| Construction | 706 | 1,744 | 2,414 | 3,242 | 2,188 | 1,450 | 1,128 | 514 |
| Manufacturing | 0 | 0 | 0 | 0 | 0 | * | * | * |
| Trans., Comm. & Util. | 423 | 492 | 529 | 455 | 439 | 431 | 371 | 326 |
| Wholesale Trade | * | * | * | * | * | * | * | * |
| Retail Trade | 329 | 265 | 315 | 368 | 412 | 494 | 471 | 421 |
| Finance, Ins. & R.E. | * | 95 | 128 | * | * | 144 | 125 | 130 |
| Services | 401 | 748 | 1,166 | 1,110 | 1,128 | 1,059 | 1,014 | 740 |
| Government | 1,408 | 1,440 | 1,486 | 1,604 | 1,632 | 1,569 | 1,681 | 1,850 |
| Federal | 249 | 241 | 182 | 147 | 143 | 132 | 117 | 156 |
| State | 41 | 19 | 21 | 30 | 35 | 35 | 32 | 28 |
| Local | 1,117 | 1,181 | 1,284 | 1,427 | 1,454 | 1,402 | 1,532 | 1,666 |
| Miscellaneous | * | * | * | * | 0 | * | * | * |

*Nondisclosable

Source: Alaska Department of Labor, ES-202 Files.

ment generated by borough operations, the school district and capital expenditures.

One example of the borough's prominence in the economy was the ambitious capital improvement program (CIP) it undertook in the late 1970s. The borough spent $1.4 billion dollars from 1978 to 1986 building schools, water and sewage facilities, cultural and health facilities, housing, roads, and other improvements. Spending peaked at $302 million in 1983. CIP projects provided residents not only with with new services and facilities but new jobs. University researchers estimated that in 1983, 603 residents, or 28% of the borough resident work force was employed by these projects.

**Although almost identical in population, NWAB's employment opportunities are roughly 60% of what they are in the North Slope Borough.**

A growing burden of bond indebtedness, $232 million in 1988, and concerns about the operating costs of these new facilities has led to a dramatic slowdown in CIP expenditures. Expenditures fell to $57 million in fiscal year 1988 and are projected to decline to $25 million in 1989. The dramatic impact of this decline in CIP activity on employment is being eased by two programs established by the borough—the Mayor's Job Program and Resident Employment and Living Improvement program (RELI).

The Mayor's Job Program is creating jobs in the borough's seven smaller villages at the cost of $4.5 million over the next two years. They are short-term jobs designed to generate economic activity and provide additional employment experience to residents. RELI is being funded at $35 million for the next two years. The purpose of RELI is to stabilize employment, provide job training and help reduce the cost of living to local residents. It includes energy conservation work, housing improvements, a coal development project, and a long list of other undertakings. The ultimate goal of this approach is to provide a transition from a heavy capital spending economy to sustainable government operation.

**Table 3**
**North Slope Borough Employment**
**(Excluding Prudhoe Bay)**
**1980-1987**

| | |
|---|---|
| 1980 | 3,018 |
| 1981 | 3,215 |
| 1982 | 3,121 |
| 1983 | 2,996 |
| 1984 | 2,833 |
| 1985 | 2,908 |
| 1986 | 2,816 |
| 1987 | 2,719 |

Source: Alaska Department of Labor, ES-202 Files.

Wage and salary employment in the borough outside of Prudhoe Bay was 2,719 in 1987, which represents one-third of total employment in the borough (table 3). Not all of this employment is held by local residents, but most of it is located in the borough's eight communities. The remainder is located on remote military radar sites and oil exploration camps outside of Prudhoe Bay. Employment peaked at 3,215 in 1981. It then began to taper off as the borough's capital improvement program began to wind down. By 1987 employment had fallen to the 2,719 level. These numbers are not expected to change much in the coming years.

Total NSB employment (table 2) peaked at 10,318 in 1983 and continued to slide through 1987. Some of the declines came as a result of the decelerating CIP program, but most of it came as a result of the slowdown in construction activity in Prudhoe Bay. During the past two years, employment declines were exacerbated by the dive in oil prices. Drilling activity, exploration and oil field development fell off dramatically, and employment fell to a low of 7,956 in 1987. By 1988 the employment picture stabilized and is beginning to show signs of resurgence.

### Another Prudhoe Bay On The North Slope?

The potential development of the Alaska National Wildlife Refuge (ANWR) looms over the economic horizon of the NSB. ANWR could turn out to be another Prudhoe Bay or it could be a bust. Experts have estimated the reserves could be as large as Prudhoe Bay's. If the development does occur, the benefits to the borough are unclear because of the question of land ownership. Presently most of this property is in federal hands. Whether it remains in federal hands, is deeded over to the Native or Village corporations, or to the state, or any combination of the above there will be radically different impacts for the North Slope Borough. One thing is certain, if the find is large, and it is developed, the NSB will not have to worry nearly as much as they do today about a declining tax base when Prudhoe Bay's production begins to fall.

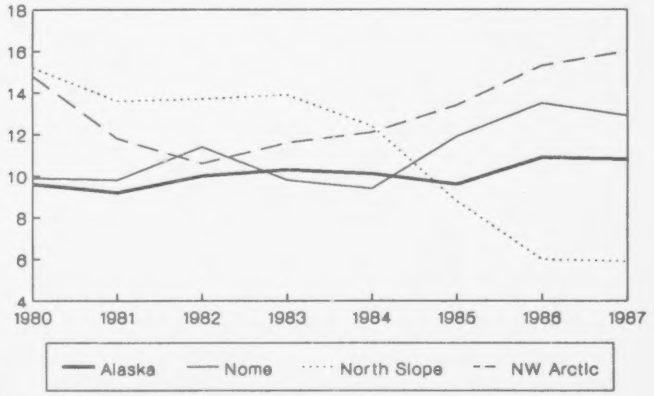
**Northwest Arctic Borough**

The Northwest Arctic Borough (NWAB) has a great deal in common with its northern neighbor, both culturally and geographically. Approximately 84% of the population are Inupiaq Eskimo. The NWAB consists of 10 villages with populations of 600 or fewer. The population of its regional center, Kotzebue, is 2,633 inhabitants. The borough boundaries are basically identical with the NANA region or those of the former Kobuk census area.

Economically speaking, NWAB's economy is a stark contrast to its northern neighbor's. Although they are almost identical in population, employment opportunities are roughly 60% of what they are in the North Slope Borough (excluding Prudhoe Bay). Only 52% of the adult population participates in the labor force and high unemployment plagues the economy (figure 4). The borough's income and poverty statistics also paint a picture of an unhealthy economy.

A survey conducted by the borough in February 1988 found that more than 63% of respondents were not working or did not have a job and 37% of those who had no employment had not worked for eight months. Though the Department of Labor's unemployment rates are significantly lower than the borough's, they were still five points above the statewide average in 1987. The dis-

Figure 4
Northern Region Unemployment 1980-87



### Table 4
### Northwest Arctic Borough Employment by Industry
### 1980-1987

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Total | 1,438 | 1,754 | 1,880 | 1,710 | 1,779 | 1,822 | 1,823 | 1,732 |
| Mining | * | * | * | * | * | * | * | * |
| Construction | 84 | * | 64 | * | 14 | * | * | * |
| Manufacturing | * | 0 | 0 | 0 | 0 | 0 | 0 | * |
| Trans., Comm., Util | 125 | 151 | 196 | 195 | 183 | 120 | 99 | 153 |
| Wholesale | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retail trade | 135 | 178 | 227 | 206 | 180 | 188 | 232 | 209 |
| Finance, Insur. & R.E. | 14 | 43 | 39 | 44 | 76 | 81 | 69 | 86 |
| Service | 168 | 198 | 207 | 258 | 237 | 251 | 277 | 336 |
| Total Government | 883 | 983 | 1,106 | 928 | 1,048 | 1,130 | 1,104 | 909 |
| Federal | 218 | 207 | 141 | 110 | 122 | 137 | 151 | 111 |
| State | 60 | 52 | 61 | 82 | 89 | 93 | 92 | 93 |
| Local | 606 | 724 | 905 | 737 | 837 | 901 | 862 | 705 |
| Miscellaneous | * | * | * | * | * | * | * | * |

*Nondisclosable

Source: Alaska Department of Labor, ES-202 Files.

crepancy between the borough's unemployment figures and the Department of Labor's is largely explained by definitional differences. The Department of Labor's figures don't account for the discouraged worker[2] and the borough's do. Because of the area's high unemployment, the NWAB was the first region in the state to be designated as an economically distressed zone under the new local hire law provisions enacted in 1987. This designation is intended to increase residents participation in the local labor force.

### Government Dominates the Economy

As in the other areas, government dominates the economy of the NWAB. Fifty-two percent of the employment is government, and a large share of the service industry's employment represents nonprofit activity that is dependent on government revenues. Tourism, a small active fishery and mining contribute to the small private sector side of the economy. Total employment trends have not been remarkable, remaining relatively unchanged since 1981. A more detailed look reveals that the service industry has broadened its share of total employment. Some of this growth came as a result of nonprofit social service agencies assuming a growing share of what were previously government functions. For example the Maniilaq Association recently took over the Indian Health Service facility from the federal government.

### The Big Break

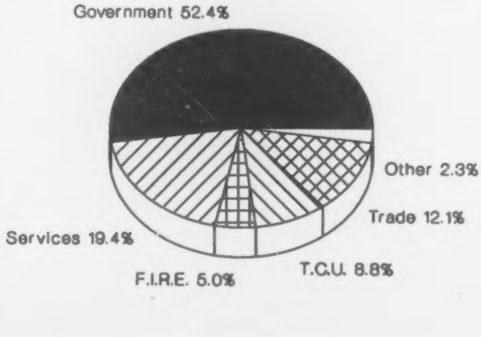
A big break in the borough's economic fortune came in 1987 when the construction of the road to the Red Dog mine began. NANA owns the Red Dog mine and Cominco will operate it. The mine will provide not only a desperately needed tax base for the borough, but it also job opportunities for local residents. Qualified borough residents will be offered the jobs first. (See *Alaska Economic Trends*, December 1987). In 1987, almost 400 people were employed at the mine site and on the 52-mile road project connecting the mine with tidewater. An equal number of workers are expected on the site this year. When the mine goes into production in 1990, it will employ roughly 400 workers. The life of the mine is projected to be 50 years.

### Summary

Today, large scale resource development is taking place in the entire Northern region. Most of it is relatively recent. The potential for additional resource extraction is enormous since the Seward Peninsula is highly mineralized. The chances of finding additional enormous oil reserves on the North Slope are better than average. The development of its giant gas fields will eventually occur. Massive deposits of coal are also known to exist on the North Slope. The region's remoteness and inaccessibility have prevented the exploitation of the region's natural resource potential. But, as more sites are developed and accessibility improves, the exploitation of other deposits will become economical. Though the world mineral markets are extremely fickle, it is almost inevitable that in the near future, additional large scale resource development will take place in the region.

These developments will not solve the more immediate problems of low income and high unemployment that most of the region faces today. The region will also continue to wrestle with the dual challenge of effectively preserving the subsistence lifestyle while increasing opportunities in the cash economy. Thus far, the North Slope Borough has come the closest to providing a balance of both. The rest of the region is closely watching the experience of the North Slope Borough to see what they might learn to enhance future development.

Figure 5
Northwest Arctic Borough
Employment by Industry — 1987



Notes:

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[1] U.S. Department of Interior, Minerals Management Service, *Technical Report # 120* volume 1 June 1986.

[2] A discouraged worker is a person who has dropped out of the labor force because they feel that no employment opportunities exist in that labor market. The Bureau of Labor Statistics definition of unemployment, currently in place, excludes anyone who has made no attempt to find work in the four week period up to and including the twelfth of the month.

# Alaska's Employment Scene

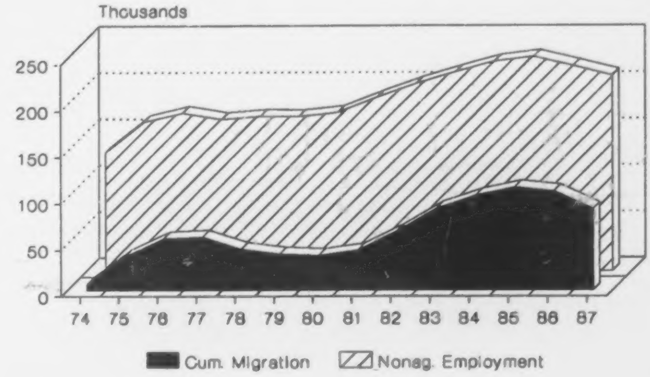
**By Brian N. Rae**

June employment data hold few surprises. Employment in most sectors shows normal seasonal gains, while total employment still lags behind that of a year-ago by one percent. Unemployment is far below that of a year-ago, as the state's labor force has declined to a greater degree than employment. June's 8.7% unemployment rate is the lowest since 1981, and 2.3 percentage points below that of a year-ago. At the same time, the June U.S. unemployment rate is the lowest in 14 years.

Over the last few years, Alaska's economy has been inversely related to that of other West Coast states. Alaska's past boom times attracted many people from the lower 48, particularly the West and Northwest. Most migrants to Alaska come from Washington, Oregon, and California, in that order. The lure of well-paying jobs attracted people to Alaska in the mid-1970s and from 1981 through 1985. As illustrated in figure 1, employment and migration trends closely parallel each other. Not only were people attracted to Alaska. In many situations, inmigrants were being forced to leave areas as well.

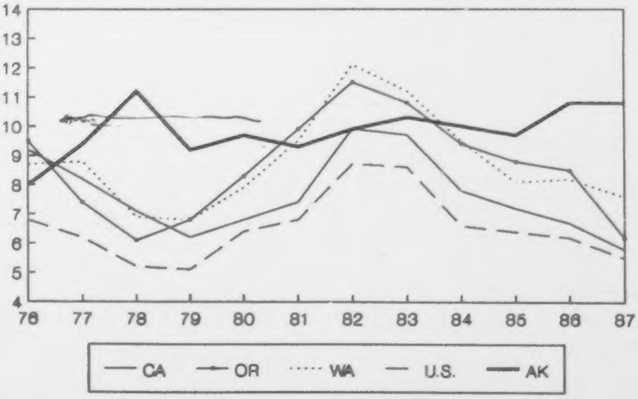
The huge revenues derived from sales of North Slope oil in the early 1980s fueled the state's latest round of economic expansion. This came when unemployment rates in the United States, particularly the West, were higher than normal and rising (figure 2). Although the number of people moving to Alaska had little effect on the unemployment rates of other western states, it had a large impact on unemployment rates in Alaska. Even with strong economic growth between 1980 and 1985, these two years had annual average unemployment rates of 9.7%. By in-migration alone, the state's population increased by nearly 70,000 persons. Without this in-migration and the expansion of the labor force, Alaska's unemployment rate might well have fallen below the national average during the early 1980s. Alaska's economy is reaching a critical size, and there are now more mechanisms in place to avert boom-bust cycles. Undertakings such as ANWR development or construction of a gas pipeline, projects which would have

Figure 1
Alaska Migration and Employment 1974-1987



migration is cumulative

Figure 2
Annual Average Unemployment 1976-1987



caused major economic upheavals fifteen years ago, would have less impact on Alaska today. The benefits of such projects, unlike earlier ones, would be directed more towards Alaska's residents.

Pressures to migrate to Alaska have fallen. Alaska's economic downturn, and the nation's improved economic condition, have slowed in-migration. With no new economic booms in sight, and many people having already left the state, it is possible that Alaska's future unemployment rates will more closely parallel those of the nation.

If our economy is insulating itself from boom-bust cycles, then two trends should become apparent over the next several years. Because of some conditions in the Alaskan economy, such as a high percentage of seasonal employment, the state's unemployment rates will probably remain slightly higher than the national rate. If spared the economic upheavals created by booms, our unemployment rate should converge on the national average. Secondly, it will take longer than most Alaskans are accustomed to reach employment levels of even a year ago. The economy, and the state's population, grew at a rapid but unnatural pace—a "frontier economy" pace—throughout the 1970s and 1980s. An overheated economy, finally quenched, caused the loss of many jobs and people. These will not easily be replaced by normal, more mature economic growth.

### Table 1
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Alaska

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 6/88 | 5/88 | 6/87 | 5/88 | 6/87 |
| Nonag. Wage & Salary | 216,400 | 209,600 | 219,100 | 6,800 | -2,700 |
| Mining | 9,100 | 9,100 | 9,000 | 0 | 100 |
| Construction | 10,400 | 9,300 | 11,900 | 1,100 | -1,500 |
| Manufacturing | 16,600 | 13,900 | 15,400 | 2,700 | 1,200 |
| Seafood Processing | 9,800 | 7,500 | 8,700 | 2,300 | 1,100 |
| Lumber & Paper Prod. | 3,500 | 3,300 | 3,300 | 200 | 200 |
| All Other Manufacturing | 3,300 | 3,100 | 3,400 | 200 | -100 |
| Transportation | 18,700 | 17,600 | 19,300 | 1,100 | -600 |
| Trucking & Warehousing | 2,600 | 2,400 | 2,600 | 200 | 0 |
| Water Transportation | 1,100 | 1,000 | 1,200 | 100 | -100 |
| Air Transportation | 5,800 | 5,400 | 5,700 | 400 | 100 |
| All Other Transportation | 9,200 | 8,800 | 9,800 | 400 | -600 |
| Trade | 43,000 | 41,200 | 43,400 | 1,800 | -400 |
| Wholesale | 7,500 | 7,500 | 7,600 | 0 | -100 |
| Retail | 35,500 | 33,700 | 35,800 | 1,800 | -300 |
| Gen.Mer.& Apparel | 5,000 | 4,700 | 5,100 | 300 | -100 |
| Food Stores | 6,100 | 5,900 | 6,000 | 200 | 100 |
| Eating & Drinking Pl. | 13,300 | 12,300 | 13,700 | 1,000 | -400 |
| All Other Retail | 11,100 | 10,800 | 11,000 | 300 | 100 |
| Finance-Ins. & R.E. | 10,900 | 10,700 | 11,400 | 200 | -500 |
| Services | 43,500 | 41,100 | 44,100 | 2,400 | -600 |
| Government | 64,200 | 66,700 | 64,600 | -2,500 | -400 |
| Federal | 18,200 | 17,700 | 18,400 | 500 | -200 |
| State | 18,500 | 18,600 | 18,200 | -100 | 300 |
| Local | 27,500 | 30,400 | 28,000 | -2,900 | -500 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1987.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

## Industry Employment

Not surprisingly for this time of year, **seafood processing** employment showed large over-the-month gains. The late May halibut opening in Southeast carried over into June, helping to boost employment. Facilities were also gearing up for the salmon season. Early openings were mixed, with near record catches of chum to below normal catches of sockeyes. Over-the-year gains were also impressive in this industry, with employment increasing by over 12%. The only area of the state showing a yearly decline was Southeast, caused by unusually high employment during June, 1987.

The other major component of the **manufacturing** industry, **lumber and paper products**, registered over 7% employment growth for both the month and year. This helped the manufacturing sector post a monthly employment gain of over 19% and a yearly gain of 8%.

Tourism helped several sectors gain employment during June. **Service** employment showed a monthly increase, aided by hotel and motel employment increases of nearly 25%. Approximately 1,000 more jobs were available in June than in May. Still, the service sector showed an over-the-year decline in employment.

**Transportation** also benefited from the tourist trade. Both air transportation and local passenger transportation showed strong over-the-month gains, but the industry as a whole was unable to reach employment levels of a year ago. Big over-the-year losers were water transportation, transporta-

### Table 2
# Nonagricultural Wage and Salary Employment By Place of Work

## Anchorage

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 6/88 | r/ 5/88 | 6/87 | 5/88 | 6/87 |
| Nonag. Wage & Salary | 100,300 | 98,300 | 103,650 | 2,000 | -3,350 |
| Mining | 3,550 | 3,500 | 3,250 | 50 | 300 |
| Construction | 5,000 | 4,400 | 6,200 | 600 | -1,200 |
| Manufacturing | 2,700 | 2,300 | 2,650 | 400 | 50 |
| Transportation | 9,600 | 9,200 | 10,150 | 400 | -550 |
| Trucking & Warehousing | 1,500 | 1,450 | 1,700 | 50 | -200 |
| Water Transportation | 300 | 350 | 350 | -50 | -50 |
| Air Transportation | 3,300 | 3,100 | 3,350 | 200 | -50 |
| All Other Transportation | 4,500 | 4,300 | 4,750 | 200 | -250 |
| Trade | 23,450 | 22,850 | 23,900 | 600 | -450 |
| Wholesale | 5,450 | 5,350 | 5,600 | 100 | -150 |
| Retail | 18,000 | 17,500 | 18,300 | 500 | -300 |
| Gen.Merch. & Apparel | 2,400 | 2,300 | 2,450 | 100 | -50 |
| Food Stores | 2,900 | 2,850 | 2,850 | 50 | 50 |
| Eating & Drinking Pl. | 7,000 | 6,750 | 7,350 | 250 | -350 |
| All Other Retail | 5,700 | 5,600 | 5,650 | 100 | 50 |
| Finance-Ins. & R.E. | 7,100 | 7,050 | 7,600 | 50 | -500 |
| Services | 24,050 | 23,450 | 24,650 | 600 | -600 |
| Government | 24,850 | 25,550 | 25,250 | -700 | -400 |
| Federal | 10,450 | 10,400 | 10,450 | 50 | 0 |
| State | 6,300 | 6,350 | 6,450 | -50 | -150 |
| Local | 8,100 | 8,800 | 8,350 | -700 | -250 |

## Anchorage-MatSu

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 6/88 | r/ 5/88 | 6/87 | 5/88 | 6/87 |
| Nonag. Wage & Salary | 106,900 | 104,650 | 110,500 | 2,250 | -3,600 |
| Mining | 3,550 | 3,500 | 3,250 | 50 | 300 |
| Construction | 5,250 | 4,600 | 6,500 | 650 | -1,250 |
| Manufacturing | 2,800 | 2,400 | 2,750 | 400 | 50 |
| Transportation | 10,300 | 9,850 | 10,800 | 450 | -500 |
| Trade | 25,250 | 24,400 | 25,650 | 850 | -400 |
| Finance-Ins. & R.E. | 7,550 | 7,500 | 8,050 | 50 | -500 |
| Services | 25,200 | 24,500 | 25,800 | 700 | -600 |
| Government | 27,000 | 27,900 | 27,700 | -900 | -700 |

## Gulf Coast

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 6/88 | r/ 5/88 | 6/87 | 5/88 | 6/87 |
| Nonag. Wage & Salary | 21,500 | 19,950 | 21,100 | 1,550 | 400 |
| Mining | 750 | 750 | 800 | 0 | -50 |
| Construction | 1,100 | 900 | 1,100 | 200 | 0 |
| Manufacturing | 4,550 | 3,750 | 4,250 | 800 | 300 |
| Seafood Processing | 3,950 | 3,150 | 3,650 | 800 | 300 |
| All Other Manufacturing | 600 | 600 | 600 | 0 | 0 |
| Transportation | 1,400 | 1,300 | 1,400 | 100 | 0 |
| Trade | 4,100 | 3,800 | 4,100 | 300 | 0 |
| Wholesale | 600 | 550 | 650 | 50 | -50 |
| Retail | 3,500 | 3,250 | 3,450 | 250 | 50 |
| Finance-Ins. & R.E. | 600 | 550 | 600 | 50 | 0 |
| Services | 3,550 | 3,350 | 3,550 | 200 | 0 |
| Government | 5,450 | 5,550 | 5,300 | -100 | 150 |
| Federal | 500 | 600 | 600 | -100 | -100 |
| State | 1,600 | 1,500 | 1,450 | 100 | 150 |
| Local | 3,350 | 3,450 | 3,250 | -100 | 100 |

## Fairbanks

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 6/88 | r/ 5/88 | 6/87 | 5/88 | 6/87 |
| Nonag. Wage & Salary | 26,500 | 25,300 | 26,850 | 1,200 | -350 |
| Mining | 100 | 100 | 200 | 0 | -100 |
| Construction | 1,750 | 1,500 | 1,900 | 250 | -150 |
| Manufacturing | 550 | 500 | 550 | 50 | 0 |
| Transportation | 2,300 | 2,100 | 2,350 | 200 | -50 |
| Trucking & Warehousing | 400 | 350 | 350 | 50 | 50 |
| Air Transportation | 400 | 350 | 350 | 50 | 50 |
| All Other Transportation | 1,500 | 1,400 | 1,650 | 100 | -150 |
| Trade | 6,200 | 5,750 | 6,050 | 450 | 150 |
| Wholesale | 700 | 700 | 800 | 0 | -100 |
| Retail | 5,500 | 5,050 | 5,250 | 450 | 250 |
| Food Stores | 850 | 800 | 700 | 50 | 150 |
| All Other Retail | 4,650 | 4,250 | 4,550 | 400 | 100 |
| Finance-Ins. & R.E. | 850 | 850 | 950 | 0 | -100 |
| Services | 5,850 | 5,300 | 5,900 | 550 | -50 |
| Government | 8,900 | 9,200 | 8,950 | -300 | -50 |
| Federal | 2,950 | 2,900 | 3,000 | 50 | -50 |
| State | 3,500 | 3,650 | 3,400 | -150 | 100 |
| Local | 2,450 | 2,650 | 2,550 | -200 | -100 |

## Interior

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 6/88 | r/ 5/88 | 6/87 | 5/88 | 6/87 |
| Nonag. Wage & Salary | 30,550 | 29,200 | 31,150 | 1,350 | -600 |
| Mining | 300 | 300 | 350 | 0 | -50 |
| Construction | 1,950 | 1,650 | 2,100 | 300 | -150 |
| Manufacturing | 550 | 550 | 600 | 0 | -50 |
| Transportation | 2,600 | 2,400 | 2,750 | 200 | -150 |
| Trade | 6,600 | 6,100 | 6,500 | 500 | 100 |
| Finance-Ins. & R.E. | 900 | 900 | 1,050 | 0 | -150 |
| Services | 6,500 | 5,700 | 6,600 | 800 | -100 |
| Government | 11,150 | 11,600 | 11,200 | -450 | -50 |

## Southeast Alaska

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 6/88 | r/ 5/88 | 6/87 | 5/88 | 6/87 |
| Nonag. Wage & Salary | 30,200 | 29,050 | 30,450 | 1,150 | -250 |
| Construction | 1,050 | 1,050 | 1,250 | 0 | -200 |
| Manufacturing | 4,650 | 4,200 | 4,700 | 450 | -50 |
| Seafood Processing | 1,050 | 850 | 1,300 | 200 | -250 |
| Lumber & Paper Prod. | 3,350 | 3,100 | 3,150 | 250 | 200 |
| All Other Manufacturing | 250 | 250 | 250 | 0 | 0 |
| Transportation | 2,400 | 2,100 | 2,500 | 300 | -100 |
| Trade | 4,850 | 4,550 | 4,950 | 300 | -100 |
| Wholesale | 450 | 400 | 400 | 50 | 50 |
| Retail | 4,400 | 4,150 | 4,550 | 250 | -150 |
| Finance-Ins. R.E. | 1,150 | 1,100 | 1,050 | 50 | 100 |
| Services | 4,850 | 4,650 | 5,000 | 200 | -150 |
| Government | 11,100 | 11,250 | 10,900 | -150 | 200 |
| Federal | 1,950 | 1,950 | 2,050 | 0 | -100 |
| State | 5,100 | 5,100 | 4,950 | 0 | 150 |
| Local | 4,050 | 4,200 | 3,900 | -150 | 150 |

tion services, communications and utilities.

The final industry showing tourism related employment gains was **trade**, specifically the retail side. Restaurants and drinking establishments benefited the most from tourism. Like most of the other sectors assisted by tourism, restaurant and eating and drinking establishment employment still showed an over-the-year decline. Preliminary hours and earnings data for June show increased hours in this industry from May.

Employment in the **construction** industry showed a normal but healthy increase between May and June. As pointed out in prior editions of *Trends*, construction has been the industry hit hardest by the economic downturn. Employment is down over 12% from that of a year ago. This is nearly 8 percentage points more than the next most hard hit industry.

**Finance, insurance and real estate** is that industry. Because it is a relatively stable industry with few seasonal influences, recovering lost employment might well take nearly as long as it will in construction. The insurance sector has experienced the most losses over-the-year, followed closely by banking.

Having already experienced its seasonal growth, **mining** employment held relatively steady. Although hard rock and coal mining are small components of the mining industry, they generated most of the monthly employment growth.

The only major industry group posting an over-the-month loss was **government**. This type of loss between May and June is not surprising, as school closings drop many from the government payrolls.

## Regional Trends

The **Anchorage-MatSu** region experienced one of the smallest rates of over-the-month growth in the state. This is not unexpected, however, since the region relies less on its seasonal industries than do other areas of the state. The seasonal industries did show acceptable growth in the region.

Seafood processing employment, though a small percentage of total jobs for the region, increased by more than two-thirds over-the-month. Although still far below last year's levels, the region's construction employment showed good seasonal gains. Heavy construction was particularly strong, with almost a 30% increase over-the-month. Government employment registered employment losses for both the month and the year, while FIRE remains over 6% below levels of a year ago. The unemployment rate for Anchorage-MatSu fell to 8%, with 600 fewer persons unemployed than last month.

The **Interior** region showed strong growth in construction, trade, and services. These industries showed monthly employment gains of 300, 500, and 800, respectively. Losses in education employment brought down government employment over-the-month, but this movement was expected. More significant is the continued loss of employment in FIRE, which dropped 2.5% over-the-month. The region's unemployment rate was the highest in the state, but fell by 1.3% from the prior month.

The **Gulf Coast** region experienced the largest drop in unemployment over-the-month, falling to 10%. This occurred even with an increase in the labor force of 1,200, as employment increased by over 1,500. Seafood processing employment showed the largest numeric gains, and the construction industry had the largest percentage gains. Gulf Coast is the only region not experiencing an over-the-year loss in construction.

**Southeast** had the lowest unemployment rate in the state, at 6.8%. Both seafood processing and tourism

### Table 3
### Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 6/88 | R/ 5/88 | 6/87 | P/ 6/88 | R/ 5/88 | 6/87 | P/ 6/88 | R/ 5/88 | 6/87 |
| Mining | $1,187.42 | $1,172.66 | $1,125.19 | 50.4 | 48.8 | 48.9 | $23.56 | $24.03 | $23.01 |
| Construction | 1,055.05 | 1,025.35 | 1,002.71 | 43.4 | 41.8 | 41.4 | 24.31 | 24.53 | 24.22 |
| Manufacturing | 513.25 | 458.47 | 488.99 | 45.3 | 36.3 | 42.3 | 11.33 | 12.63 | 11.56 |
| Seafood Processing | 395.90 | 294.87 | 334.27 | 47.3 | 32.8 | 42.1 | 8.37 | 8.99 | 7.94 |
| Lumber & Paper Prod | 632.61 | 632.10 | 662.20 | 42.4 | 42.0 | 43.0 | 14.92 | 15.05 | 15.40 |
| Trans., Comm. & Util. | 576.30 | 555.80 | 558.96 | 36.2 | 34.5 | 35.9 | 15.92 | 16.11 | 15.57 |
| Trade | 384.54 | 367.62 | 377.97 | 34.0 | 33.0 | 34.9 | 11.31 | 11.14 | 10.83 |
| Wholesale | 572.72 | 532.84 | 522.72 | 39.8 | 38.5 | 39.6 | 14.39 | 13.84 | 13.20 |
| Retail | 321.28 | 310.69 | 329.00 | 32.0 | 31.1 | 33.3 | 10.04 | 9.99 | 9.88 |
| Finance-Ins. & R.E | 380.46 | 387.21 | 380.14 | 34.0 | 33.7 | 33.2 | 11.19 | 11.49 | 11.45 |

Benchmark March 1987

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

helped the region attain this low unemployment rate, but the benefits were not spread evenly throughout the region. Both the Sitka and Juneau boroughs had unemployment rate increases, while Ketchikan's remained stable over-the-month. The more rural areas showed significant declines in their rates.

On the strength of both seafood processing and construction employment, the **Southwest** region's unemployment dropped to 8.1% in June. This region is one of the few to show actual employment growth over-the-year. The **Northern** region showed an over-the-month increase in its unemployment rate. Employment remained very close to that of last month, but an increase in the labor force caused the rise in the unemployment rate. This region did, however, post the largest over-the-year decline in its unemployment rate.

## Conclusion

Alaska's industries could be loosely grouped into three categories. Some industries, such as manufacturing, are experiencing typical seasonal growth and show few ill effects from the economic downturn. Most other industries fill the middle ground. They were hurt by the downturn, and have not yet recovered. They have, however, stabilized at a lower level of employment and are showing typical seasonal employment patterns. The construction industry exemplifies the other extreme, severely hurt and showing little sign of recovery. Whereas the first group helped soften the economic fall experienced during the 1986-87 downturn, the second group determines the employment levels. Normal, more mature patterns of economic growth could prove quite helpful to the state's economy. They will not, however, quickly replace the jobs lost over the last two years.

### Table 4
### Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 6/88 | R/ 5/88 | 6/87 | P/ 6/88 | R/ 5/88 | 6/87 | P/ 6/88 | R/ 5/88 | 6/87 | P/ 6/88 | R/ 5/88 | 6/87 |
| Alaska Statewide ....... | 249,832 | 246,218 | 262,243 | 21,684 | 23,182 | 28,871 | 8.7 | 9.4 | 11.0 | 228,148 | 223,036 | 233,372 |
| Anch.-MatSu Region ..... | 128,010 | 127,269 | 135,897 | 10,264 | 10,862 | 13,350 | 8.0 | 8.5 | 9.8 | 117,746 | 116,407 | 122,547 |
| Anchorage Borough .... | 113,112 | 112,568 | 119,285 | 8,070 | 8,519 | 10,320 | 7.1 | 7.6 | 8.7 | 105,042 | 104,049 | 108,965 |
| MatSu Borough ....... | 14,898 | 14,701 | 16,612 | 2,194 | 2,343 | 3,030 | 14.7 | 15.9 | 18.2 | 12,704 | 12,358 | 13,582 |
| Gulf Coast Region ...... | 28,762 | 27,565 | 29,439 | 2,864 | 3,224 | 3,788 | 10.0 | 11.7 | 12.9 | 25,898 | 24,341 | 25,651 |
| Kenai Peninsula Bor ... | 18,316 | 17,447 | 18,925 | 2,141 | 2,244 | 2,904 | 11.7 | 12.9 | 15.3 | 16,175 | 15,203 | 16,021 |
| Kodiak Island Bor ..... | 6,361 | 6,108 | 6,401 | 398 | 504 | 495 | 6.3 | 8.3 | 7.7 | 5,963 | 5,604 | 5,906 |
| Valdez-Cordova ........ | 4,085 | 4,010 | 4,113 | 325 | 476 | 389 | 8.0 | 11.9 | 9.5 | 3,760 | 3,534 | 3,724 |
| Interior Region ......... | 37,611 | 36,906 | 40,221 | 4,263 | 4,652 | 5,971 | 11.3 | 12.6 | 14.8 | 33,348 | 32,254 | 34,250 |
| Fairbanks North Star Br | 32,351 | 31,602 | 34,446 | 3,538 | 3,734 | 4,854 | 10.9 | 11.8 | 14.1 | 28,813 | 27,868 | 29,592 |
| Southeast Fairbanks ... | 2,167 | 2,213 | 2,362 | 222 | 332 | 364 | 10.2 | 15.0 | 15.4 | 1,945 | 1,881 | 1,998 |
| Yukon-Koyukuk ....... | 3,093 | 3,091 | 3,413 | 503 | 586 | 753 | 16.3 | 19.0 | 22.1 | 2,590 | 2,505 | 2,660 |
| Northern Region ....... | 8,340 | 8,254 | 8,616 | 924 | 825 | 1,283 | 11.1 | 10.0 | 14.9 | 7,416 | 7,429 | 7,333 |
| Nome ............... | 3,198 | 3,204 | 3,336 | 376 | 377 | 545 | 11.8 | 11.8 | 16.3 | 2,822 | 2,827 | 2,791 |
| North Slope Borough .. | 2,911 | 2,889 | 2,936 | 181 | 154 | 237 | 6.2 | 5.3 | 8.1 | 2,730 | 2,735 | 2,699 |
| Northwest Arctic Bor ... | 2,231 | 2,161 | 2,344 | 367 | 294 | 501 | 16.5 | 13.6 | 21.4 | 1,864 | 1,867 | 1,843 |
| Southeast Region ....... | 34,184 | 33,480 | 35,510 | 2,316 | 2,459 | 3,074 | 6.8 | 7.3 | 8.7 | 31,868 | 31,021 | 32,436 |
| Haines Borough ....... | 884 | 871 | 917 | 80 | 89 | 99 | 9.0 | 10.2 | 10.8 | 804 | 782 | 818 |
| Juneau Borough ...... | 15,052 | 14,623 | 15,502 | 844 | 791 | 1,040 | 5.6 | 5.4 | 6.7 | 14,208 | 13,832 | 14,462 |
| Ketchikan Gateway Br | 6,747 | 6,570 | 7,093 | 450 | 440 | 684 | 6.7 | 6.7 | 9.6 | 6,297 | 6,130 | 6,409 |
| Pr. of Wales-Outer Ktch | 2,626 | 2,573 | 2,698 | 342 | 350 | 373 | 13.0 | 13.6 | 13.8 | 2,284 | 2,223 | 2,325 |
| Sitka Borough ........ | 4,089 | 3,963 | 4,216 | 267 | 243 | 326 | 6.5 | 6.1 | 7.7 | 3,822 | 3,720 | 3,890 |
| Skagway-Yakūtat-Ang | 1,574 | 1,615 | 1,605 | 163 | 242 | 169 | 10.4 | 15.0 | 10.5 | 1,411 | 1,373 | 1,436 |
| Wrangell-Petersburg .... | 3,212 | 3,265 | 3,479 | 170 | 304 | 383 | 5.3 | 9.3 | 11.0 | 3,042 | 2,961 | 3,096 |
| Southwest Region ...... | 12,925 | 12,744 | 12,560 | 1,053 | 1,160 | 1,405 | 8.1 | 9.1 | 11.2 | 11,872 | 11,584 | 11,155 |
| Aleutian Islands ....... | 3,547 | 3,482 | 3,360 | 128 | 146 | 148 | 3.6 | 4.2 | 4.4 | 3,419 | 3,336 | 3,212 |
| Bethel .............. | 5,048 | 4,952 | 4,992 | 493 | 508 | 712 | 9.8 | 10.3 | 14.3 | 4,555 | 4,444 | 4,280 |
| Bristol Bay Borough ... | 457 | 441 | 413 | 45 | 39 | 26 | 9.8 | 8.8 | 6.3 | 412 | 402 | 387 |
| Dillingham ........... | 2,249 | 2,227 | 2,229 | 128 | 157 | 236 | 5.7 | 7.0 | 10.6 | 2,121 | 2,070 | 1,993 |
| Wade Hampton ....... | 1,624 | 1,642 | 1,566 | 259 | 310 | 283 | 15.9 | 18.9 | 18.1 | 1,365 | 1,332 | 1,283 |

P/ = Preliminary　　R/ = Revised　　1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers

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# ALASKA ECONOMIC TRENDS

September 1988

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Cost of Living Indicators

Alaska's Income Measures

Alaska's Employment Scene

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# Alaska Economic Trends

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**The following notes pertain to Non-agricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates
R/ Denotes revised estimates

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# Cost of Living Indicators

By James Wilson and Brian N. Rae

At first glance, quantifying cost of living differences between localities seems an easy task. Most persons could visit a community, comparison shop for the products and services they use regularly, collect information on housing costs, and determine a cost of living differential for the two areas. Although meeting the needs of that particular person, this comparison would be less than ideal for others with different consumption patterns. Attempting to find cost of living differences for an "average" household is like stating that the average family size is 3.21 persons. The figures are defensible, but one would be hard pressed to find this average family.

**Only Boston and New York have statistically significant higher indexes than the three Alaska cities.**

This problem is amplified when comparing areas with uniquely different consumption patterns - which area is to act as a standard, to which others are compared? Rural areas have characteristics which must be taken into account when comparing them with urban areas. Subsistence activities, whether a small garden in the suburbs or whaling and hunting in rural Alaska, impact the cost of living. What monetary value is applied to these activities? As of yet, no widely accepted method of adjusting the cost of living indicators for subsistence activities has been proposed.

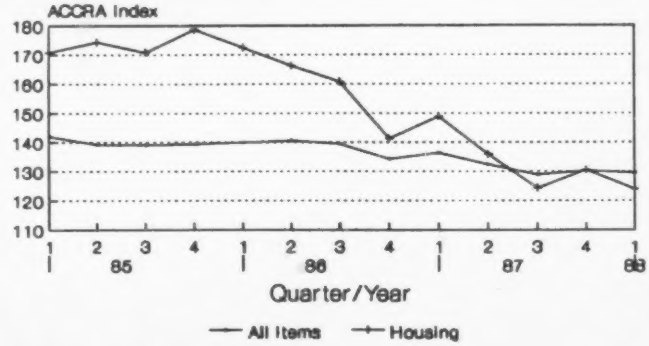
Some persons emphasize the living component in the cost of living index. What compensation is demanded for lack of certain amenities, whether unspoiled wilderness or live theater and gourmet restaurants? By example, Bethel and Los Angeles offer unique, but vastly different, recreational opportunities for their residents. For the person who enjoys their current surroundings, relocation to the other area would impose a cost which is not easily measured.

All cost of living surveys rely on the creation of a market basket of goods and services, designed to reflect the consumption patterns of the targeted population. In the opening example where one computes their personal cost of living differentials, the market basket is defined by the individual. Any deviation from this personal market basket lessens its usefulness for this person.

Because of these and other limitations, certain steps have been taken by organizations creating cost of living indexes in an attempt to alleviate these problems. Many surveys, such as the Consumer Price Index, American Chamber of Commerce Research Association, and the Runzheimer survey, look only at urban areas. Still, some areas are more urban than others, and offer different recreational opportunities and hardships. All the surveys make clear their assumptions and targeted population. The Cost of Food for a Week survey computes costs for different family sizes and at "low cost", "thrifty", "moderate", and "liberal" expenditure levels. The data presented here are the "low cost" figures.

Comparisons between communities are

Figure 1
ACCRA All Item & Housing Indexes -Anchorage
1/85 to 1/88 by quarter



1/88 data unavailable. Data presented is average of two closest quarters.

**The ACCRA housing index shows that nearly 20 cities studied have housing costs higher than Alaska.**

not the only important cost of living measures. The most used cost of living indicator, the Consumer Price Index, makes no attempt to quantify differences between localities, looking instead at movements within a locality over time. The CPI is often used to adjust wage and salary payments and government disbursements. Approaching a different problem, surveys like those conducted by Runzheimer International are used to adjust payments after a geographic relocation, making a point-in-time comparison between places.

## SURVEYS MAKING PLACE-TO-PLACE COMPARISONS

### ACCRA Inter-city Cost of Living Index

The American Chamber of Commerce Researchers Association (ACCRA) produces a quarterly report comparing relative price levels for goods and services for roughly 250 cities in the United States. In each city in the study, a standardized list of 59 items is priced during a set period of time. The items priced in each community are intended to represent the spending patterns of a household headed by a mid-management professional. After the pricing is finished, items are aggregated by category and the index numbers are produced. The all-cities average for the index is always 100 for each reporting period.

The ACCRA index is computed based on a standardized shopping list of goods and services. Because of the limited sample of items priced, however, differences in the index of three or less (such as 129 vs 130) are statistically insignificant. Differences in the index greater than three can be considered to show an actual cost of living difference. Percentage differences, measured by the ACCRA

Table 1
ACCRA Inter-City Cost of Living Index
First Quarter 1988
Ranking of 20 Highest Index Cities

| City | Index | Total Grocery | Housing | Utilities | Transportation | Health | Miscellaneous |
|---|---|---|---|---|---|---|---|
| Boston, MA | 157.6 | 114.1 | 288.5 | 129.8 | 111.0 | 147.4 | 119.0 |
| New York, NY | 154.6 | 110.6 | 242.2 | 191.7 | 114.8 | 140.0 | 122.4 |
| FAIRBANKS, AK | 130.9 | 130.6 | 127.7 | 124.5 | 123.9 | 191.4 | 124.7 |
| Washington DC | 130.8 | 108.8 | 186.2 | 104.8 | 114.9 | 150.6 | 114.6 |
| JUNEAU, AK | 129.7 | 127.4 | 125.3 | 119.7 | 124.1 | 196.4 | 124.9 |
| ANCHORAGE, AK | 129.5 | 136.7 | 123.9 | 107.8 | 116.7 | 188.4 | 129.4 |
| Philadelphia, PA | 126.5 | 113.2 | 139.2 | 164.6 | 109.0 | 139.8 | 115.3 |
| Naperville, IL | 125.4 | 106.4 | 171.8 | 111.9 | 116.3 | 113.7 | 113.6 |
| Manchester, NH | 123.6 | 101.0 | 169.9 | 127.0 | 109.5 | 113.7 | 109.8 |
| Hartford, CT | 123.3 | 108.9 | 147.0 | 129.3 | 109.2 | 134.1 | 115.5 |
| San Diego, CA | 121.0 | 100.0 | 180.0 | 78.0 | 125.9 | 119.2 | 103.7 |
| Fitchburg-Leominster, MA | 120.6 | 102.3 | 163.2 | 135.5 | 111.6 | 105.9 | 101.4 |
| Orange County, CA | 119.6 | 91.5 | 178.2 | 74.4 | 112.8 | 133.8 | 108.8 |
| San Jose, CA | 117.9 | 101.8 | 171.9 | 70.6 | 114.3 | 134.6 | 102.6 |
| Los Angeles, CA | 117.0 | 91.5 | 168.6 | 74.4 | 108.1 | 127.3 | 110.8 |
| Temecula, CA | 115.1 | 97.8 | 149.8 | 97.6 | 121.2 | 120.0 | 102.0 |
| Palm Springs, CA | 115.0 | 97.9 | 144.5 | 95.5 | 106.5 | 130.3 | 110.3 |
| Wilmington, DE | 113.7 | 109.6 | 134.5 | 111.8 | 106.5 | 102.8 | 107.2 |
| Scottsdale, AZ | 113.1 | 104.3 | 129.1 | 114.6 | 108.2 | 117.6 | 106.7 |
| West Palm Beach, FL | 112.4 | 99.9 | 111.9 | 128.9 | 122.1 | 113.6 | 109.2 |
| **Ranking of Alaska Cities by Category** | | | | | | | |
| Fairbanks, AK | 3 | 2 | 20 | 19 | 3 | 2 | 3 |
| Juneau, AK | 5 | 3 | 21 | 26 | 2 | 1 | 2 |
| Anchorage, AK | 6 | 1 | 22 | 68 | 8 | 3 | 1 |

Source: Inter-City Cost of Living Index, First Quarter 1988, American Chamber of Commerce Researchers Association index, are only a reasonable indication and not a precise measure of the extent of any difference. No attempt is made to include state or local taxes in the data although it is realized that taxes are a part of the cost of living.

Three Alaskan cities are included in the quarterly ACCRA data. These are Anchorage, Fairbanks, and Juneau. According to the latest available numbers (1st quarter 1988) the three Alaska cities have the same cost of living levels (remembering that index differences less than three are insignificant). The Alaska cities' cost of living are roughly 30% higher than the all-cities average. Only Boston and New York have statistically significant higher indexes than the three Alaska cities.

Alaska's three major cities lead the nation for three components of the ACCRA index, groceries, health care, and miscellaneous goods and services (tables 1 & 2). Only one city, San Diego, had higher transportation costs than Fairbanks or Juneau. Housing costs have always been thought to be exceptionally high in Alaska. The ACCRA housing index shows that nearly 20 cities studied have housing costs higher than Alaska. This has not always been the case. As illustrated in Figure 1, the housing index for Anchorage was much higher than the all items index until the end of 1986. At that time, housing costs came down and dropped below the all items levels during the end of 1987. The lowest rankings for Alaska's cities were in the ACCRA utilities cost index. Table 3 shows a sample of ACCRA participant cities, with surveyed costs for selected items.

The ACCRA index measures the difference in cost of living between a specific city and the all-cities average at one point in time. The ACCRA index does not measure changes within a city

**The ACCRA survey shows no significant difference in the cost of living among Alaska's larger cities.**

**Table 2**
**ACCRA Inter-City Cost of Living Index**
**(First Quarter 1988)**

| City | All Items Index | Grocery Items | Housing | Utilities | Transportation | Health Care | Miscellaneous Goods & Services |
|---|---|---|---|---|---|---|---|
| West | | | | | | | |
| ANCHORAGE, AK | 129.5 | 136.7 | 123.9 | 107.8 | 116.7 | 188.4 | 129.4 |
| FAIRBANKS, AK | 130.9 | 130.6 | 127.7 | 124.5 | 123.9 | 191.4 | 124.7 |
| JUNEAU, AK | 129.7 | 127.4 | 125.3 | 119.7 | 124.1 | 196.4 | 124.9 |
| Salt Lake City, UT | 98.3 | 93.5 | 89.4 | 95.8 | 101.4 | 103.1 | 105.9 |
| San Diego, CA | 121.0 | 100.0 | 180.0 | 78.0 | 125.9 | 119.2 | 103.7 |
| Seattle, WA | 109.1 | 114.8 | 106.9 | 62.4 | 118.2 | 147.3 | 11.8 |
| Southwest | | | | | | | |
| Albuquerque, NM | 101.1 | 95.2 | 107.5 | 92.2 | 111.4 | 104.6 | 97.7 |
| Dallas, TX | 105.8 | 106.9 | 105.0 | 109.8 | 114.3 | 112.7 | 99.0 |
| Phoenix, AZ | 103.2 | 100.1 | 105.4 | 88.6 | 102.8 | 124.0 | 104.1 |
| Midwest | | | | | | | |
| Saint Paul, MN | 104.8 | 96.1 | 110.1 | 112.1 | 114.1 | 108.5 | 98.2 |
| Omaha, NE | 92.9 | 91.3 | 93.8 | 78.9 | 100.9 | 91.7 | 95.2 |
| Saint Louis, MO | 99.4 | 98.1 | 96.7 | 104.3 | 101.0 | 101.9 | 99.3 |
| Southeast | | | | | | | |
| Atlanta, GA | 108.6 | 96.8 | 122.0 | 117.1 | 98.2 | 120.0 | 104.0 |
| Birmingham, AL | 98.7 | 101.0 | 94.9 | 111.0 | 93.5 | 92.1 | 99.3 |
| Louisville, KY | 96.1 | 97.0 | 90.9 | 97.3 | 96.0 | 100.6 | 98.0 |
| Atlantic/New England | | | | | | | |
| Baltimore, MD | 104.1 | 99.2 | 109.3 | 104.3 | 101.8 | 109.6 | 102.5 |
| Boston, MA | 157.6 | 114.1 | 288.5 | 129.8 | 111.0 | 147.4 | 119.0 |
| New York, NY | 154.6 | 110.6 | 242.2 | 191.7 | 114.8 | 140.0 | 122.4 |
| Philadelphia, PA | 126.5 | 113.2 | 139.2 | 164.6 | 109.0 | 139.8 | 115.3 |

Source: Inter-City Cost of Living Index.(256 Cities) 1st Quarter 1988.
American Chamber of Commerce Researchers Accociations.

over time as does the Consumer Price Index. It does provide a measure of how much the cost within an individual city differs from the all-cities average. It is possible to see over time if an individual city's cost of living is becoming increasingly higher or lower than this average

The ACCRA index for Anchorage in the first quarter of 1985 was 142.0. The first quarter 1988 index is 129.5. This means that the cost of living in Anchorage three-years ago was 42% higher than the all-cities average but is now roughly 30% higher. Over the last six quarters the indexes for both Fairbanks and Juneau have moved closer to the all-cities average. Figure 2 illustrates this cost of living convergence towards the average. The Fairbanks index in July 1986 was roughly 42% higher than the all-cities average but is now approximately 31% above the all-cities average. Similarly, Juneau's index moved from 45% above the all-cities index to 30 higher. Note that, although the curves slope downward, this does not indicate a decrease in the overall cost of living in Alaska. Rather, our cost of living is increasing at a slower rate than other cities in the survey. At the same time, the differences between the curves have decreased, indicating a lessening in the cost of living differences between the three cities. For the first quarter 1988 data, any differences are statistically insignificant.

## Cost of Food at Home

Comparing the cost of living between communities in Alaska is made difficult by several factors. Many goods and services available in larger cities are not readily available in some rural areas. The buying habits of urban residents vary from people in rural communities. The different consump-

**Table 3**
**ACCRA Inter-City Cost of Living Index**
**(First Quarter 1988)**

| City | 1 lb Ground Beef | ½ gal Whole Milk | 1 lb Coffee | House Purchase Price | Total Energy Cost | 1 gal Gas | Hospital Room | Office Visit Doctor |
|---|---|---|---|---|---|---|---|---|
| West | | | | | | | | |
| ANCHORAGE, AK | $1.42 | $1.86 | $3.29 | $119,750 | $123.10 | $0.95 | $370.00 | $45.00 |
| FAIRBANKS, AK | 1.51 | 1.79 | 3.19 | 102,625 | 143.12 | 1.14 | 305.00 | 49.33 |
| JUNEAU, AK | 1.49 | 1.72 | 3.72 | 114,850 | 128.48 | 1.29 | 308.00 | 34.90 |
| Salt Lake City, UT | 1.11 | 1.05 | 2.79 | 87,982 | 101.66 | 0.96 | 259.00 | 23.20 |
| San Diego, CA | 1.47 | 1.02 | 2.41 | 158,500 | 86.48 | 0.92 | 315.00 | 34.00 |
| Seattle, WA | 1.12 | 1.18 | 3.29 | 97,061 | 64.80 | 0.94 | 268.36 | 36.40 |
| Southwest | | | | | | | | |
| Albuquerque, NM | 1.10 | 1.24 | 2.45 | 102,860 | 99.36 | 0.96 | 246.20 | 22.20 |
| Dallas, TX | 1.46 | 1.37 | 2.39 | 93,936 | 122.55 | 0.87 | 231.20 | 32.80 |
| Phoenix, AZ | 1.18 | 0.88 | 2.69 | 99,616 | 96.55 | 0.85 | 261.80 | 31.80 |
| Midwest | | | | | | | | |
| Saint Paul, MN | 1.23 | 1.06 | 2.91 | 89,740 | 122.83 | 0.89 | 312.18 | 25.40 |
| Omaha, NE | 1.10 | 1.06 | 2.61 | 84,875 | 82.84 | 0.79 | 184.80 | 27.30 |
| Saint Louis, MO | 1.20 | 1.24 | 2.95 | 88,170 | 117.65 | 0.92 | 219.40 | 31.80 |
| Southeast | | | | | | | | |
| Atlanta, GA | 1.56 | 1.22 | 2.34 | 119,705 | 129.88 | 0.81 | 219.60 | 37.00 |
| Birmingham, AL | 1.26 | 1.35 | 2.38 | 90,400 | 118.39 | 0.83 | 215.40 | 28.60 |
| Louisville, KY | 1.41 | 1.36 | 2.55 | 84,020 | 104.43 | 0.81 | 252.20 | 24.40 |
| Atlantic/New England | | | | | | | | |
| Baltimore, MD | 1.41 | 1.07 | 2.83 | 103,200 | 112.41 | 0.92 | 252.20 | 30.20 |
| Boston, MA | 1.99 | 1.08 | 2.72 | 272,050 | 144.42 | 0.99 | 390.00 | 43.50 |
| New York, NY | 1.59 | 1.15 | 2.71 | 213,800 | 215.46 | 1.06 | 250.00 | 39.00 |
| Philadelphia, PA | 1.84 | 1.06 | 2.76 | 119,580 | 191.85 | 0.85 | 397.50 | 38.40 |
| ALL CITIES MEAN | 1.31 | 1.21 | 2.65 | 94,236 | 110.04 | 0.90 | 216.42 | 26.30 |

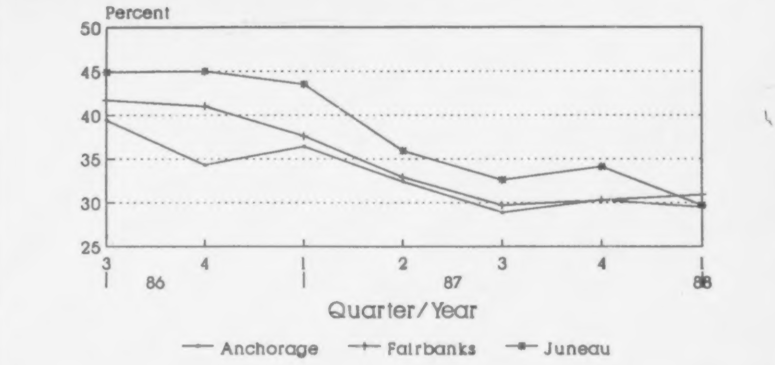
All cities mean is the mean price of all 256 cities in the 1st quarter 1988 survey.
Source: Inter-City Cost of Living Index.(256 Cities) 1st Quarter 1988. American Chamber of Commerce Researchers Accociations.

tion patterns in urban and rural areas complicate comparisons in the cost of living. Subsistence contributions to some households also make cost of living comparisons more difficult.

The University of Alaska, in cooperation with the U.S. Department of Agriculture, prepares a quarterly report of food prices, to measure how much it costs to feed families in different locations in Alaska. The report also contains some comparative information on some utility and fuel costs. The Cost of Food at Home survey is not a comprehensive measure of the cost of living for communities in Alaska. It does provide some comparative measure for locations not covered by any other cost of living measure.

Table 4 shows the cost of food for a week for a family of four with elementary school children, plus other selected costs, for 19 Alaska

## Figure 2
## ACCRA Index for Alaska Cities Percent Above All-cities Average 3/86 through 1/88 by quarter



### Table 4
### Cost of Selected Items in Various Alaskan Communities
### March 1988

| Community | Percent Sales Tax | Cost of Food, 1 Week | Ratio of Food Cost to Anchorage Average (percent) | Ratio of Food Cost to U.S. Average (percent) | Electricity (1000 kwh) | Heating Oil (55 gal) | Unleaded Gasoline (1 gal) | Lumber (2x4x8) |
|---|---|---|---|---|---|---|---|---|
| U.S. Average | 0 | $86.60 | 98 | 100 | - | - | - | - |
| Anchorage | 0 | 88.08 | 100 | 102 | $71.12 | $56.05 | - | - |
| Bethel | 5 | 139.37 | 158 | 161 | 176.60 | 67.10 | $1.54 | $3.60 |
| Cordova | 4 | 134.54 | 153 | 155 | 160.00 | 66.00 | 1.40 | 2.80 |
| Delta | 0 | 117.94 | 134 | 136 | 91.81 | 45.65 | 1.07 | 2.10 |
| Dillingham | 3 | 140.08 | 159 | 162 | 113.21 | 83.60 | 1.65 | 3.20 |
| Fairbanks | 0 | 90.14 | 102 | 104 | 86.43 | 53.63 | 0.96 | 1.96 |
| Homer | 5 | 108.19 | 123 | 125 | 86.82 | - | 1.13 | 2.06 |
| Juneau | 4 | 88.79 | 101 | 103 | 75.30 | 65.82 | 1.35 | 2.13 |
| Kenai | 5 | 94.01 | 107 | 109 | 70.00 | 53.08 | 1.13 | 2.11 |
| Ketchikan | 5 | 84.28 | 96 | 97 | 86.55 | 50.60 | 1.26 | 1.29 |
| Kodiak | 5 | 106.94 | 121 | 123 | 145.88 | 57.20 | 1.28 | 2.48 |
| Kotzebue | 3 | 144.96 | 165 | 167 | 239.46 | 104.76 | 1.80 | 3.29 |
| MatSu | 2 | 95.70 | 109 | 111 | 101.01 | 46.20 | 0.97 | 1.84 |
| McGrath | 0 | 134.24 | 152 | 155 | 331.70 | 92.95 | 2.20 | 4.75 |
| Nome | 4 | 146.99 | 167 | 170 | 150.00 | 74.25 | 1.72 | 3.90 |
| Sitka | 4 | 97.93 | 111 | 113 | 66.00 | 51.98 | 1.23 | 2.08 |
| Tok | 0 | 113.44 | 129 | 131 | 213.26 | 52.25 | 1.28 | 1.92 |
| Unalakleet | 3 | 145.12 | 165 | 168 | - | 99.00 | 1.85 | - |
| Valdez | 0 | 120.56 | 137 | 139 | 156.60 | 57.20 | 1.09 | 2.49 |

Family of four with elementary school children

Sales tax included in food and utility cost

- Data unavailable

Source: "Cost of Food at Home for a Week," March 1988. University of Alaska Cooperative Extension Service U.S. Dept. of Agriculture and SEA Grant Cooperative communities. In Anchorage, the state's largest metropolitan area, the cost of food is only 2 percent higher than the national average. The March 1988 cost figures show Ketchikan has the lowest food costs of the areas surveyed. The larger cities in Alaska have food costs which are fairly comparable to those in Anchorage.

Prior examinations of the Cost of Food data have shown that the most expensive cities are smaller, more isolated communities. This continues to be true. In places such as Bethel, Kotzebue, and McGrath food costs are 50% to 70% higher than in Anchorage.

**In places such as Bethel, Kotzebue, and McGrath food costs are 50% to 70% higher than in Anchorage.**

Table 5 shows that the difference in the cost of food between Anchorage and the U.S. has narrowed since 1978. The cost in Anchorage has dropped from 48% higher than the U.S. to within 4 percent of the U.S. (in September 1987). The March 1988 figures show a further decline to within 2% of the U.S. costs.

The ACCRA index numbers indicate a greater difference in food costs between Alaska and the U.S. than the Cost of Food at Home for a Week study. For example, the ACCRA data show the cost of groceries in Anchorage to be 36% higher than the all-cities average whereas the Cost of Food data show only a two percent difference. This may be due in part to the limited number of items priced in the ACCRA survey, and differences in the groups the two surveys measure.

### Runzheimer International's Living Cost Standards

Under contract with the State of Alaska, Runzheimer International made a study of living costs in 272 areas around the country. Like all surveys, Runzheimer developed a market basket designed around an "average" family. In the Runzheimer survey, this is a family of four with an average income of $32,000. Unlike most other surveys, Runzheimer approached price differences from an income perspective. After certain assumptions were set, such as a 1,500 square foot house and two cars driven 18,000 miles total, an income level was computed in order to maintain this standard in the location being surveyed. The data supplied shows, with these assumptions, the comparable income levels between different localities (Table 6).

Home ownership was assumed in the survey, with purchase having taken place within the last year. This component had the largest effect on the cost of living, since for all three Alaskan cities the price of a home has dropped substantially over the last couple of years. In contrast with rising costs for homes in other parts of the country,

### Table 5
### Cost of Food at Home for a Week
### (1978-1987)

| Month/ Year | U.S. | Anchorage | Percent of U.S. Average | Fairbanks | Percent of U.S. Average | Juneau | Percent of U.S. Average | Bethel | Percent of U.S. Average | Nome | Percent of U.S. Average | Kodiak | Percent of U.S. Average | Kenai | Percent of U.S. Average | Tok | Percent of U.S. Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9/78 | $56.90 | $76.67 | 134.7 | $84.15 | 147.9 | $73.72 | 129.6 | $114.05 | 200.4 | $118.85 | 208.9 | - | - | $82.48 | 145.0 | - | - |
| 12/79 | 63.70 | 85.80 | 134.7 | 91.92 | 144.3 | 77.55 | 121.7 | 120.44 | 189.1 | 124.62 | 195.6 | - | - | 100.41 | 157.6 | - | - |
| 9/80 | 69.20 | 88.44 | 127.8 | 90.54 | 130.8 | 85.92 | 124.2 | 130.87 | 189.1 | 131.14 | 189.5 | $99.42 | 143.7 | 120.84 | 174.6 | $108.82 | 157.3 |
| 9/81 | 72.90 | 86.69 | 118.9 | 98.47 | 135.1 | 93.95 | 128.9 | 138.66 | 190.2 | 150.27 | 206.1 | - | - | - | - | 114.80 | 157.5 |
| 9/82 | 74.60 | 77.30 | 103.6 | 92.09 | 123.4 | 99.98 | 134.0 | 125.50 | 168.2 | 149.04 | 199.8 | - | - | - | - | - | - |
| 9/83 | 74.80 | 81.66 | 109.2 | 83.79 | 112.0 | 88.62 | 118.5 | 128.30 | 171.5 | 130.14 | 174.0 | 104.94 | 140.3 | 86.98 | 116.3 | - | - |
| 9/84 | 77.60 | 84.22 | 108.5 | 91.26 | 117.6 | 91.66 | 118.1 | 136.54 | 176.0 | 142.07 | 183.1 | 115.97 | 149.4 | 87.97 | 113.4 | 121.66 | 156.8 |
| 9/85 | 78.30 | 89.06 | 113.7 | 90.08 | 115.0 | 106.61 | 136.2 | 138.13 | 176.4 | 152.41 | 194.6 | 108.17 | 138.1 | 91.47 | 116.8 | 116.19 | 148.4 |
| 9/86 | 82.00 | 87.25 | 106.4 | 90.61 | 110.5 | 87.65 | 106.9 | 137.96 | 168.2 | 142.04 | 173.2 | 105.49 | 128.6 | 92.78 | 113.1 | 124.18 | 151.4 |
| 9/87 | 85.30 | 88.90 | 104.2 | 85.12 | 99.8 | 88.24 | 103.4 | 140.81 | 165.1 | 147.96 | 173.5 | 104.39 | 122.4 | 96.95 | 113.7 | 117.51 | 137.8 |

Family of four with elementary school children

Sales tax included in food prices

- Data unavailable

Source: "Cost of Food at Home for a Week," September 1978 to September 1987. University of Alaska Cooperative Extension Service, U.S. Department of Agriculture and SEA Grant Cooperative.

this placed Anchorage, Fairbanks and Juneau at positions 53, 76, and 79, respectively among the 272 different areas in the survey. Similar housing trends can be seen in other surveys, particularly the CPI.

## Federal Government Per Diem and Cost of Living Allowances

Although not intended to serve as a cost of living indicator, the Department of Defense regularly surveys areas to determine the maximum allowable per diem for employees on travel status. The survey addresses the costs for lodging, meals, and miscellaneous and incidental expenditures. As shown in Table 7, there is quite a difference between localities in the state. With the small number of items surveyed, these differences could well come from competition, or lack thereof, among service providers in the communities. Rural areas also show less of a difference in the per diem allowances than in most indexes of costs of living. Urban areas often charge as much or more for overnight accomodations and meals as do rural areas. Other expenses generally are less in urban areas, and this is reflected in the other cost of living indexes.

A second federal survey is conducted to compute adjustments for cost of living pay differentials for "overseas" military personnel. The multipliers for Alaska, which are applied to the pay ranges applicable to duty in the lower 48 states, are also displayed in Table 7. Like other cost of living indexes, this one targets a certain group, namely uniformed military personnel. Because of this, certain areas which would normally have higher costs for the overall population might show a lower cost of living index. In Kodiak, the cost of living seems unusually low in comparison to other indexes. The major factor in this, however, is the existence of the military post exchange in Kodiak, which lessens the cost of living in this one location. Civilians living in Kodiak do not benefit from this service. This is an instance where data users must take into account the target population, and adjust their analysis of the data accordingly.

## The Fourth Annual McDonalds Meal Index

When designing a cost of living survey, several important criteria need to be met. 1) The market basket should include all items normally used by the target group. 2) Prices should be collected from the same types of establishments in each of the communities. This means that convenience store prices should not be used in one area if prices from other areas are collected from large volume supermarkets. 3) Pricing should occur as close to the same time as possible. 4)

Table 6
Runzheimer Report - Living Cost Standards

| City | Total Living Costs | Percent of Standard City | Trans | Percent of Standard City | Housing | Percent of Standard City | Goods & Services | Percent of Standard City | Misc. (includes savings) | Percent of Standard City |
|---|---|---|---|---|---|---|---|---|---|---|
| New York, NY | $41,699 | 130 | $6,782 | 179 | $17,259 | 157 | $ 9,577 | 103 | $2,519 | 120 |
| ANCHORAGE, AK | 37,404 | 117 | 4,507 | 119 | 15,771 | 143 | 10,696 | 115 | 1,926 | 91 |
| Washington, D.C. | 37,050 | 116 | 4,417 | 117 | 15,461 | 141 | 9,680 | 104 | 2,145 | 102 |
| San Diego, CA | 36,558 | 114 | 4,670 | 123 | 15,284 | 139 | 9,137 | 99 | 2,222 | 106 |
| FAIRBANKS, AK | 35,842 | 112 | 4,436 | 117 | 13,685 | 124 | 10,863 | 117 | 1,926 | 91 |
| Boston, MA | 35,262 | 110 | 4,716 | 125 | 13,074 | 119 | 9,321 | 101 | 2,005 | 95 |
| JUNEAU, AK | 35,240 | 110 | 4,288 | 113 | 12,883 | 117 | 11,022 | 119 | 2,076 | 99 |
| STANDARD CITY, U.S.A. | 32,000 | -- | 3,782 | -- | 10,992 | -- | 9,272 | -- | 2,105 | -- |
| Seattle, WA | 31,746 | 99 | 4,334 | 115 | 10,460 | 95 | 9,464 | 102 | 2,390 | 114 |
| Houston, TX | 31,322 | 98 | 4,468 | 118 | 10,061 | 92 | 9,406 | 101 | 2,145 | 102 |
| Mobile, AL | 29,435 | 92 | 3,571 | 94 | 8,407 | 76 | 8,784 | 95 | 2,476 | 118 |

Source: Runzheimer International, Living Cost Division.

**Since 1985, housing costs have declined in the Anchorage CPI, helping hold down the overall index**

Items should be as nearly alike as possible. This is not, by any means, all the criteria which must be met for a good survey. They will help to illustrate, however, the usefullness and flaws inherent in the McDonalds Meal Index, as compiled by the Alaska Department of Labor.

The McDonalds Meal Index does not meet criteria one. This survey only answers the question, "What is the cost of a McDonalds meal in different localities?" Some of the other surveys have this problem to varying degrees. The Cost of Food at Home survey compares exactly what its title implies, food items. Although information is collected for other commodities for each locality, the experts who prepare this survey make no claim that it represents a total cost of living study for the areas.

Consistancy in the types of suppliers surveyed, criterion two, is mostly met in the McDonalds Meal Index. Although prices may vary in urban areas because of location (prices in malls might, for many reasons, prove higher than those of self-contained McDonalds), most of the rural areas will have only one outlet, with the same features as outlets in other rural areas. The ACCRA survey has been faulted by some for its lack of attention to such matters. In Alaska, the three areas are surveyed by skilled researchers. This is not necessarily the case in many other states. Lack of attention to this consistent pricing can, and will, give erroneous results.

Table 7
Federal Per Diem Rates and Cost of Living Adjustments by Communities

| City | Per Diem | Percent of Anchorage | COLA Adjustments |
|---|---|---|---|
| Anchorage | 125 | -- | 118 |
| Anaktuvuk Pass | 140 | 112 | |
| Barrow | 146 | 117 | |
| Bethel | 127 | 102 | |
| Cordova | 130 | 104 | 134 |
| Fairbanks | 114 | 91 | |
| Juneau | 114 | 91 | 132 |
| Ketchikan | 111 | 89 | 132 |
| Kodiak | 118 | 94 | 120 |
| Kotzebue | 143 | 114 | |
| Nome | 129 | 103 | |
| Seward | 122 | 98 | 134 |
| Tanana | 129 | 103 | |
| Valdez | 147 | 118 | 134 |
| Yakutat | 110 | 88 | |

All the surveys discussed in this article meet criterion three. The McDonalds survey was conducted over the course of two days. A decision was made to disregard promotional or sale prices, using instead the price immediately before any such reduction in price. Some surveys, with many more items in their market basket, will take the approach that such price reductions are to be expected, and will either cancel out over the course of the survey between localities or will reflect a real reduction in living costs through higher competitive pressures.

The McDonalds Meal Index fills the fourth criterion perfectly, and was one of the most important factors in selecting this item as an indicator of varying costs between communities. McDonalds places a great deal of emphasis on the consistency of its products both over time and between locations. With larger surveys, this criterion becomes harder to meet. Pricing a house and lot **exactly** the same as one in another location is impossible. As the distance between locations increases, certain brand names might not be available. Finally, certain items might have regional appeals and be unavailable in other areas surveyed.

The results of the McDonalds Meal Index survey are presented inTable 8, as well as the data from last year's survey. The authors would like to thank the McDonalds corporation and the surveyed locations for their cooperation in compiling these data.

## A SURVEY MAKING TIME SERIES COMPARISONS

### The Consumer Price Index

The Consumer Price Index (CPI) has been computed by the Bureau of Labor Statistics (BLS) since the early 1900s. Results of the survey show how the cost of living has changed **in a particular place** over time. The survey does not show differences in the cost of living among several different cities. This is the most confusing aspect of the CPI to most people.

A market basket is priced for the current month, and compared to the same market basket purchased during the base period. The ratio of the current price to the base period price multiplied by 100 is the new index. For consistency, all cities use the same base period, which by definition has a value of 100. Under the most current system of computing the index, an average of a city's market basket prices during the period 1984 through 1986 serves as the base price. All cities will cross over the 100 index level at some time during this period.

The market basket covers the costs of food, shelter, fuel, clothing, transportation, medical services and other goods and services used regularly by an average consumer. Because only areas defined as urban during the 1980 census are used in the CPI surveys, Alaska's only representative is Anchorage. Still the CPI serves as an important benchmark against which to compare other expenditure surveys, and illustrates changes in the Alaska economy as compared to the entire United States (Table 9).

No other measure of price movements is as widely used as the CPI, both by the public and private sectors. The concept of price movements is an important one, as the CPI measures expenditures needed to maintain a certain standard of living, and does not attempt to measure changes in income needed to maintain this lifestyle. Factors outside the scope of the CPI, such as income taxes, are not included in computations, whereas sales taxes are included since they directly affect expenditures.

Another important consideration in analyzing CPI data is the fixed sample of goods used to compute the index. A survey of the households under consideration, the Consumer Expenditure Survey, determines the "weight" of a product in the sample. Simplified, the survey attempts to peg the amount of a product consumed by the typical household. The "relative importance" of the product in the index changes as the ratio of its price to all other products changes. Since the standards of living, and the weighting of different products, change over time, the BLS regularly updates the CPI market basket and base year. For more information on the most recent CPI update, and detailed breakouts of the various expenditure groupings, refer to the June 1988 issue of *Alaska Economic Trends.*

**The cost of living in the U.S. is increasing at a more rapid pace than that of Anchorage.**

### Table 8
### Cost of a "Quarter Pounder" Meal by Location
### Surveyed August, 1988

| Location | Quarter pounder w/cheese | Large Fries | Medium Drink | Total Meal Cost | Percent of Anchorage | Cost August 1987 | Percent Change over year |
|---|---|---|---|---|---|---|---|
| Adak | $2.30 | $0.99 | $0.90 | $4.19 | 104.0 | $3.97 | 5.5 |
| Anchorage | 2.09 | 1.09 | 0.85 | 4.03 | -- | 3.45 | 16.8 |
| Eagle River | 2.09 | 1.09 | 0.85 | 4.03 | 100.0 | 3.77 | 6.9 |
| Fairbanks | 1.99 | 0.99 | 0.79 | 3.77 | 93.5 | 3.69 | 2.2 |
| Homer | 1.95 | 0.99 | 0.79 | 3.73 | 92.6 | 3.52 | 6.0 |
| Juneau | 1.99 | 0.99 | 0.79 | 3.77 | 93.5 | 3.67 | 2.7 |
| Kenai | 1.99 | 0.99 | 0.82 | 3.80 | 94.3 | 3.61 | 5.3 |
| Ketchikan | 1.99 | 0.99 | 0.70 | 3.68 | 91.3 | 3.64 | 1.1 |
| Kodiak | 2.09 | 0.99 | 0.84 | 3.92 | 97.3 | 3.78 | 3.7 |
| Sitka | 1.99 | 0.99 | 0.77 | 3.75 | 93.1 | 3.67 | 2.2 |
| Soldotna | 1.99 | 0.99 | 0.82 | 3.80 | 94.3 | 3.61 | 5.3 |
| Wasilla | 2.09 | 0.99 | 0.85 | 3.93 | 97.5 | 3.77 | 4.2 |
| Avg. Price | 2.05 | 1.01 | 0.81 | 3.87 |  | 3.68 | 5.1 |

Analysis of the expenditure groupings, such as housing, food, fuel, and medical care, gives an indication as to their relative importance. For Alaska, the cost of housing was generally perceived to be one of the greatest factors in the state's high cost of living. Since 1985, housing costs have declined in the Anchorage CPI, helping hold down the overall index (Figure 3). With this decline, other groupings become more important to the movements of the index. Both in the Anchorage and the U.S. CPIs, medical care costs have increased in overall importance since 1985, when malpractice claims became a major topic of concern within the industry. Notice that the lines cross between 1982 and 1984. As mentioned earlier, this is the base period and will be near 100 for all localities.

As shown in Figure 4, the U.S. index has increased at a much greater rate than has the Anchorage index. It is important to remember that the CPI is a rate of change and not a comparison between locations. For this reason, Figure 4 indicates that the cost of living in the U.S. is **increasing at a more rapid pace**, but is not higher than that of Anchorage.

## CONCLUSION

There is no single comprehensive measure of the cost of living which satisfies the needs of all users of such information. Cost of living measures are designed to provide specific data about a select target group. Even then a cost of living measure is not exact, but only an approximate value for an "average" consumer. Cost of living measures which are designed to compare different geographic areas can fall short of providing a good comparison because of factors which cannot be measured. With all the built in limitations, the several cost of living measures can provide good information, comparing different locations at a single point in time or, as with the CPI, a time series for a specific location.

The Consumer Price Index data show that the cost of living in Alaska is continuing to rise, as it is in other parts of the United States. It also shows that the cost in Anchorage is rising less sharply than the national average. Studies such as the Cost of Food at Home and ACCRA show that the cost of living is higher in Alaska than other parts of the U.S. but that the differences between the U.S. and Alaska are lessening. In major Alaska cities the differences in the cost of living have lessened during recent years. Now the costs in Anchorage, Fairbanks, and Juneau are comparable. One continuing observation is the relatively higher cost in more isolated communities than in the Alaskan urban centers.

Table 9
Consumer Price Index - Urban Consumers
U.S. and Anchorage, All Items and Components

| | U.S. | | ANCHORAGE | | HOUSING | | MEDICAL | | FOOD & BEVERAGE | |
|---|---|---|---|---|---|---|---|---|---|---|
| Year | Annual Average | Percent Change | Annual Average | Percent Change | U.S. Annual Average | Anchorage Annual Average | U.S. Annual Average | Anchorage Annual Average | U.S. Annual Average | Anchorage Annual Average |
| 60 | 29.6 | | 34.4 | | | | | | | |
| 61 | 29.9 | 1.0 | 34.5 | 0.3 | | | | | | |
| 62 | 30.2 | 1.0 | 34.7 | 0.6 | | | | | | |
| 63 | 30.6 | 1.3 | 34.8 | 0.3 | | | | | | |
| 64 | 31 | 1.3 | 35 | 0.6 | | | | | | |
| 65 | 31.5 | 1.6 | 35.3 | 0.9 | | | | | | |
| 66 | 32.4 | 2.9 | 36.3 | 2.8 | | | | | | |
| 67 | 33.4 | 3.1 | 37.2 | 2.5 | | | | | | |
| 68 | 34.8 | 4.2 | 38.1 | 2.4 | | | | | | |
| 69 | 36.7 | 5.5 | 39.6 | 3.9 | | | | | | |
| 70 | 38.8 | 5.7 | 41.1 | 3.8 | | | | | | |
| 71 | 40.5 | 4.4 | 42.3 | 2.9 | | | | | | |
| 72 | 41.8 | 3.2 | 43.4 | 2.6 | | | | | | |
| 73 | 44.4 | 6.2 | 45.3 | 4.4 | | | | | | |
| 74 | 49.3 | 11.0 | 50.2 | 10.8 | | | | | | |
| 75 | 53.8 | 9.1 | 57.1 | 13.7 | | | | | | |
| 76 | 56.9 | 5.8 | 61.5 | 7.7 | 53.8 | 62.6 | 52 | 52.6 | 62.1 | 64.2 |
| 77 | 60.6 | 6.5 | 65.6 | 6.7 | 57.4 | 65.5 | 57 | 57.9 | 65.8 | 68.9 |
| 78 | 65.2 | 7.6 | 70.2 | 7.0 | 62.4 | 69.7 | 61.8 | 63.4 | 72.2 | 75.9 |
| 79 | 72.6 | 11.3 | 77.6 | 10.5 | 70.1 | 78 | 67.5 | 69.1 | 79.9 | 84 |
| 80 | 82.4 | 13.5 | 85.5 | 10.2 | 81.1 | 85.9 | 74.9 | 78.8 | 86.7 | 89.7 |
| 81 | 90.9 | 10.3 | 92.4 | 8.1 | 90.4 | 92.5 | 82.9 | 86.9 | 93.5 | 94.3 |
| 82 | 96.5 | 6.2 | 97.4 | 5.4 | 96.9 | 98.2 | 92.5 | 94.8 | 97.3 | 97.2 |
| 83 | 99.6 | 3.2 | 99.2 | 1.8 | 99.5 | 99 | 100.6 | 99.7 | 99.5 | 99.7 |
| 84 | 103.9 | 4.3 | 103.3 | 4.1 | 103.6 | 102.7 | 106.8 | 105.5 | 103.2 | 103.2 |
| 85 | 107.6 | 3.6 | 105.8 | 2.4 | 107.7 | 103 | 113.5 | 110.9 | 105.6 | 106.2 |
| 86 | 109.6 | 1.9 | 107.8 | 1.9 | 110.9 | 102.6 | 122 | 127.8 | 109.1 | 110.8 |
| 87 | 113.6 | 3.6 | 108.2 | 0.4 | 114.2 | 97.5 | 130.1 | 137 | 113.5 | 113.1 |

*For additional information on the surveys mentioned in this article, contact the Alaska Department of Labor, Research and Analysis Unit. Inquiries can also be made to the appropriate organizations listed below.*

Mrs. Alice Klein
The American Chamber of Commerce
Researchers Association
c/o Louisville Area Chamber of Commerce
One Riverfront Plaza
Louisville, KY 40202

The annual subscription rate for the quarterly ACCRA report is $75.

Mr. Dennis G. Taylor
Runzheimer and Company
Living Cost Division
Runzheimer Park
Rochester, WI 53167

Runzheimer Living Cost Standards are available for purchase through the company.

For information on the Cost of Food at Home for a Week survey, contact:

Marguerite Stetson
c/o University of Alaska
Cooperative Extension Service
Fairbanks, AK 9970

**Figure 3**
**Anchorage CPI**
**All Item and Selected Items 1982-1984 average equals 100**

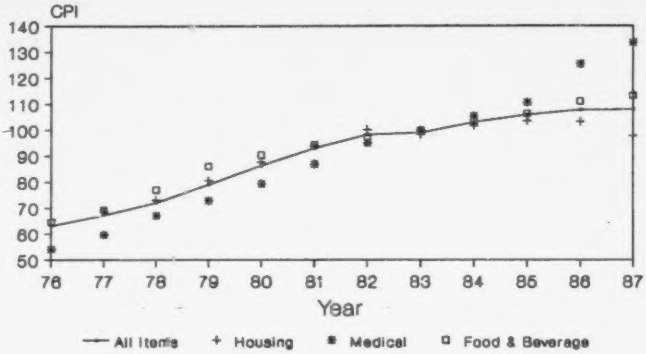
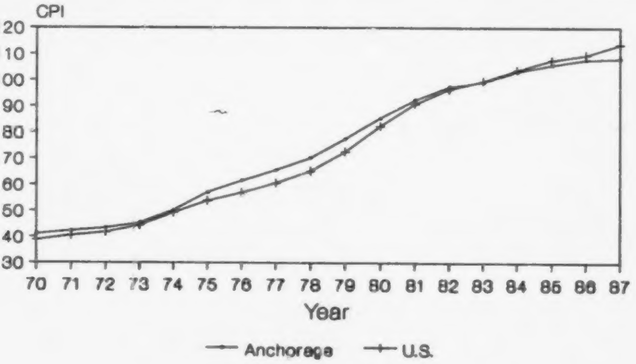


**Figure 4**
**CPI- Urban consumers**
**U.S.and Anchorage 1982-1984 average equals 100**



# Alaska's Income Measures

By Greg Huff

**In 1987 Alaska's—**

* Personal income fell 2.1%, while the nation's increased 7.0%.

* Per capita income fell to 4th place among the states, from #1 in 1985.

* Total personal income totalled $9.6 billion and ranked 46th among the states.

* Government transfer payments increased due to high unemployment levels.

**In 1988, the Bureau of Economic Analysis forecasts that Alaska's—**

* Personal income begins to increase. However, the increases are anemic compared to the national increases.

* Total nonagricultural payroll increases $1.7 million and the average monthly wage increases $30.

**In 1987 Alaska's total personal income declined for the second year in a row**

These are highlights from recently released income statistics from the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) and Alaska Department of Labor (DOL). These statistics are useful in many ways. Depending upon their composition they can be used to measure the purchasing power of individuals or the economy as a whole. They can be used to gauge the average cost of an employee to a firm or as a yardstick to compare average wages in certain industries. Income data from BEA are available for the nation, on a statewide basis, or even for the state's various regions.

This article examines some common income measures available for Alaska and compares them with U.S. statistics. Also included are poverty level guidelines which are used to determine eligibility for various government programs. The statistics presented in this article are the most current at the time of writing.

### Total Personal Income

According to BEA figures, in 1987 Alaska's total personal income declined for the second year in a row. This decline counters the national trend, but is understandable in light of Alaska's recession and the strong national economy. Wyoming, another state which relies heavily on oil, experienced more severe declines in personal income over the same period. Except Louisiana, every other state had increases in total income for both years. Louisiana's income fell in 1986 and rebounded modestly in 1987. Texas, the second largest oil producing state but a more diversified economy, managed to avoid declines. Still the personal income increase in Texas was far below the national average. One trend is clear— oil producing states had sluggish growth in total personal income. The degree of sluggishness depended upon how much that state's economy was based upon the oil industry.

Alaska's total personal income of $9.6 billion in 1987 is ranked 46th—higher than in Wyoming, North and South Dakota, and Vermont. Alaska's total personal income falls just shy of Montana's total personal income level.

When inflation is taken into account Alaska's 1987 income level is $1 billion more than 1982 levels, $2.5 billion above 1979, and over twice the 1970 level (Figure 1). Preliminary BEA income estimates indicate a moderate gain in personal income in 1988.

First quarter BEA income estimates for 1988 showed Alaska's total income increasing a modest 0.8%. This trend does not appear to be an aberration. Fourth quarter 1987 estimates also indicated gains (1.7%). Because inflation is low (as measured by the Anchorage CPI-U) the moderate increase is enough to maintain purchasing power.

### Sources of Income

What is total personal income? The Bureau of Economic Analysis breaks income sources into three main categories: 1) earnings, 2) dividends, interest, and rent, and 3) transfer payments.

Earnings, the largest component, are derived from wages and salaries, other labor income (like contract work or tips) and proprietors' income. The earnings component in 1987 accounted for 75% of income. In 1980 earnings accounted for 84% of total personal income. During the early 1980s dividends, interest and rent, and transfer payments were gaining share of total personal income because they were growing faster than earnings. In 1986 and 1987 they gained share because earnings fell off sharply when jobs and paychecks were lost.

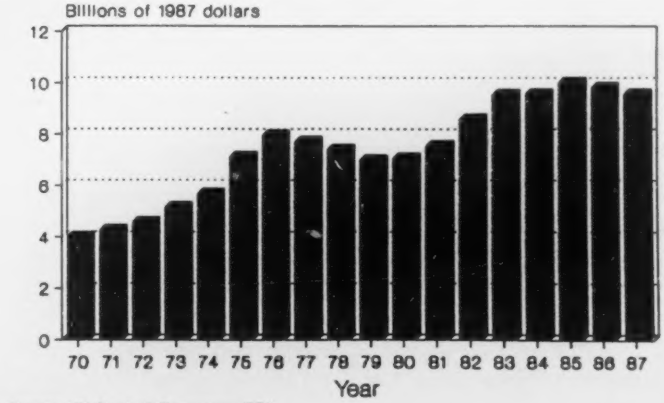
The dividends, interest, and rent income component is the aggregate of proceeds from investments made by an individual, while transfer payments are income from government assistance to individuals. Large increases in transfer payments in the early 1980s was a result of the onset of annual permanent fund dividend payments to Alaskans. Increases in the number of people applying for unemployment and other social support payments also contributed to increasing transfer payments beginning in 1985.

In early 1988 a boost in manufacturing, oil, federal and state government earnings income combined with increases in transfer payments produced moderate gains in Alaska's total personal income. Transfer payments were not boosted by increased unemployment payments, but other government assistance. The number of unemployment insurance claims declined from the peak of the previous two years. As mentioned earlier BEA's income estimates for first quarter 1988 showed Alaska's personal income rising a moderate 0.8% over the first quarter 1987 level.

U.S income statistics show that the contribution of earnings (wages and salaries, other labor and proprietors income) to personal income represent similar proportions in Alaska and the nation. The contribution of dividends, interest, and rent, however, are greater nationally than in Alaska (Figure 2). The difference can be explained by the differing age characteristics of the Alaskan and national populations. Alaskans are younger on average than

**The earnings component in 1987 accounted for 75% of income. In 1980 earnings accounted for 84% of total personal income**

**Figure 1**
**Alaska Total Personal Income**
**1970-1987**

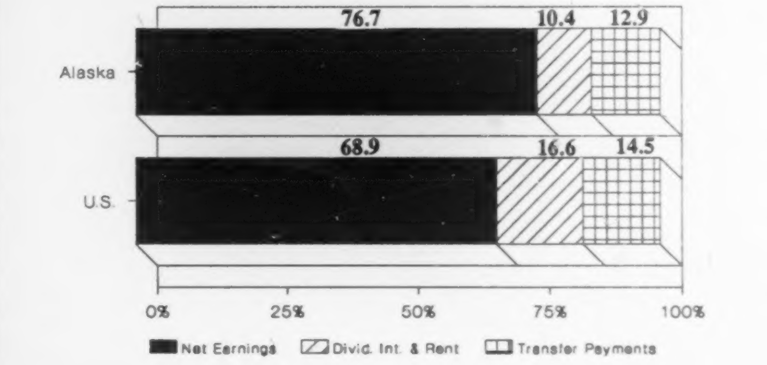


Source: US Dept of Commerce, BEA

their fellow Americans. Since older people tend to own more capital than younger people they tend to earn more dividends, interest or rent than younger people.

Alaska's small elderly population also explains a smaller percentage of transfer payments than the rest of the nation. Alaska's population aged 65 and over is only 3.4% of the total population compared to the national average of 12.1%. Since the majority of social security payments go to older Americans it makes sense that transfer payment income would be lower in Alaska.

## Figure 2
## Personal Income by Component U.S. and Alaska



Source: US Dept. of Commerce. BEA

### Table 1
### Components of Total Personal Income Alaska for Selected Years

| | 1980 | 1985 | 1986 | 1987 |
|---|---|---|---|---|
| Total Personal Income | 100.0% | 100.0% | 100.0% | 100.0% |
| Net Earnings (less adjustments)[1] | 84.4 | 78.7 | 77.1 | 75.3 |
| Dividends, Interest & Rent | 7.3 | 10.0 | 10.3 | 11.0 |
| Transfer Payments | 8.7 | 11.3 | 12.6 | 13.7 |
| | | | | |
| Earnings | 100.0% | 100.0% | 100.0% | 100.0% |
| Wages and Salaries | 81.8 | 82.2 | 81.4 | 81.1 |
| Other Labor Income | 6.8 | 7.2 | 7.1 | 7.0 |
| Proprietors Income | 11.4 | 10.6 | 11.5 | 11.9 |

* Adjusted using Anchorage CPI-U

[1] Personal contributions for social insurance are excluded from total personal income but included in (gross) earnings. Other adjustments include residence, farm proprietors and rental income adjustments.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Figures from BEA indicate that from 83% to 86% of Alaska's total personal income is disposable income, depending upon the year. These percentages fall in line with the national average. Disposable income is simply total income less taxes, hence, spendable. This would represent nearly $8 billion in 1987 that Alaskans had available to purchase goods and services or to make investments.

## Per Capita Income and Household Income

Per capita personal income is defined as the annual total personal income for residents of an area divided by its resident population. This theoretically, includes every man, woman and child. /1

As Table 2 indicates, Alaska's per capita income has increased every year since 1970, except in 1984, 1986 and 1987. The U.S average per capita income did not fall during those years. As a result, Alaska's per capita income has fallen in relation to the national average. In 1987 Alaska's per capita income was 118% of the national average — down from 151% in 1982 and 173% in 1976 (peak construction year for the Trans-Alaska pipeline).

When inflation is taken into account, the per capita trends change. It is apparent that while income increased nearly every year for a decade and a half, the purchasing power of that income has fluctuated (Figure 3). Two peaks in Alaska's per capita income are evident, one in 1976 and another in 1983. The U.S. average has taken a less bumpy road. Despite ups and downs, Alaska's and the nation's per capita incomes are substantially greater than 17 years ago.

Alaska and Wyoming were the only states to experience per capita income losses in 1986 and 1987, but income in other oil-depressed states indicated little growth over the period. Because

Alaska's per capita income declined in absolute terms it also fell in rank compared to other states. In 1985 Alaska's per capita income led the nation, as it had for over a decade. By 1987 Alaska was ranked 4th.

Average household income figures can be derived from BEA data by multiplying a state's average number of persons per household by its per capita income. Using this calculation Alaska's average household income comes to $52,685, third behind Connecticut and New Jersey. Alaska's household income inches up two notches above the per capita rank because of a large average household size (Table 3).

The BEA also produces data for subregions of states, such as counties or boroughs, but these data lag one year behind the statewide estimates. In Alaska's case regional data are published for its 23 census areas, half of which correspond to the boundaries of organized boroughs, the other to unorganized areas.

Alaska's census area data reveal that 11 of the 23 census areas had per capita levels below the national average. Most of these areas are rural in character, have little industry base and low levels of cash income.

Nine census areas had levels greater than the statewide average. These areas include three of Alaska's urban centers— Anchorage, Juneau and Ketchikan, which represent one-half of Alaska's total population. The six other areas which have a per capita income greater than the statewide average have smaller populations and at least one high paying industry in their boundaries which makes a sizable contribution to the employment base. For some areas, the oil industry is the primary catalyst, for others it is government or the fishing or timber industries. Three of the areas are boroughs- Bristol Bay, Haines and North Slope. The other three are census areas- Skagway-Yakutat-Angoon, Valdez-Cordova and Wrangell-Petersburg.

**Alaska's average household income comes to $52,685, third behind Connecticut and New Jersey**

Noncash sources of goods and services, which are important in many Alaskan rural census areas, are not included in personal income data. Many census

## Table 2
## Total and Per Capita Personal Income Alaska and the United States 1970-1987

| | Alaska Total (millions of dollars) | U.S. Total (millions of dollars) | Alaska Per Capita (dollars) | U.S. Per Capita (dollars) | Alaska Percent of U.S. Per Capita |
|---|---|---|---|---|---|
| 1970 | 1,517 | 825,528 | 4,986 | 4,051 | 123 |
| 1971 | 1,671 | 888,453 | 5,279 | 4,296 | 123 |
| 1972 | 1,832 | 976,071 | 5,610 | 4,664 | 120 |
| 1973 | 2,160 | 1,095,076 | 6,482 | 5,181 | 125 |
| 1974 | 2,632 | 1,204,070 | 7,635 | 5,644 | 135 |
| 1975 | 3,755 | 1,307,539 | 10,121 | 6,069 | 167 |
| 1976 | 4,521 | 1,446,099 | 11,499 | 6,647 | 173 |
| 1977 | 4,674 | 1,601,844 | 11,764 | 7,289 | 161 |
| 1978 | 4,805 | 1,806,207 | 11,947 | 8,133 | 147 |
| 1979 | 5,017 | 2,026,684 | 12,435 | 9,025 | 138 |
| 1980 | 5,586 | 2,252,021 | 13,797 | 9,910 | 139 |
| 1981 | 6,449 | 2,514,231 | 15,520 | 10,949 | 142 |
| 1982 | 7,739 | 2,663,432 | 17,360 | 11,480 | 151 |
| 1983 | 8,758 | 2,834,385 | 18,134 | 12,098 | 150 |
| 1984 | 9,140 | 3,101,163 | 18,090 | 13,114 | 138 |
| 1985 | 9,777 | 3,317,239 | 18.726 | 13,895 | 135 |
| 1986 | 9,780 | 3,521,393 | 18,378 | 14,606 | 126 |
| 1987 | 9,576 | 3,768,125 | 18,230 | 15,481 | 118 |

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Note: Income figures in this table are not adjusted (no adjustment has been made for price changes).

areas with low per capita income have exceptionally high costs for energy, food and other goods and services. (See Cost of Living article this *Trends*.) For these reasons, caution is advised when using per capita personal income data to compare the standard of living between census areas of the state.

## Sources of Wages and Salaries

This section is broken into two segments. The first uses data from the U.S Department of Commerce to compare the industry distribution of wage and salaries in Alaska to the distribution nationally. This section provides a general perspective to Alaska's economic uniqueness. The second section uses Alaska Department of Labor data and will look at the

### Table 3
### Per Capita Personal and Average Household Income By State
### 1986-1987

| STATE | 1986 | 1987 | 1986-87 Percent Change | 1986-87 Percent U.S. | 1987 Avg. Persons Household | 1987 Avg. Household Income |
|---|---|---|---|---|---|---|
| Connecticut | $19,547 | $21,266 | 8.8 | 137 | 2.62 | $55,717 |
| District of Columbia | 18,876 | 20,457 | 8.4 | 132 | 2.35 | 48,074 |
| New Jersey | 18,793 | 20,352 | 8.3 | 131 | 2.68 | 54,543 |
| Massachusetts | 17,635 | 19,142 | 8.5 | 123 | 2.58 | 49,386 |
| Alaska | 18,378 | 18,230 | –0.8 | 117 | 2.89 | 52,685 |
| Maryland | 16,934 | 18,124 | 7.0 | 117 | 2.68 | 48,572 |
| New York | 16,821 | 18,004 | 7.0 | 116 | 2.58 | 46,450 |
| California | 16,792 | 17,821 | 6.1 | 115 | 2.68 | 47,760 |
| New Hampshire | 16,396 | 17,529 | 6.9 | 113 | 2.61 | 45,751 |
| Delaware | 15,498 | 16,696 | 7.7 | 107 | 2.64 | 44,077 |
| Virginia | 15,423 | 16,517 | 7.1 | 106 | 2.63 | 43,440 |
| Illinois | 15,503 | 16,442 | 6.1 | 106 | 2.65 | 43,571 |
| Nevada | 15,453 | 16,366 | 5.9 | 105 | 2.49 | 40,751 |
| Minnesota | 14,993 | 15,927 | 6.2 | 102 | 2.6 | 41,410 |
| Hawaii | 14,683 | 15,679 | 6.8 | 101 | 3.02 | 47,351 |
| Washington | 14,866 | 15,599 | 4.9 | 100 | 2.51 | 39,153 |
| Colorado | 15,114 | 15,584 | 3.1 | 100 | 2.56 | 39,895 |
| Florida | 14,622 | 15,584 | 6.6 | 100 | 2.46 | 38,337 |
| Rhode Island | 14,589 | 15,555 | 6.6 | 100 | 2.57 | 39,976 |
| United States | 14,606 | 15,481 | 6.0 | 100 | 2.64 | 40,870 |
| Michigan | 14,807 | 15,393 | 4.0 | 99 | 2.68 | 41,253 |
| Pennsylvania | 14,281 | 15,212 | 6.5 | 98 | 2.62 | 39,855 |
| Kansas | 14,503 | 15,126 | 4.3 | 97 | 2.54 | 38,420 |
| Wisconsin | 13,923 | 14,742 | 5.9 | 95 | 2.62 | 38,624 |
| Missouri | 13,946 | 14,687 | 5.3 | 94 | 2.56 | 37,599 |
| Ohio | 13,857 | 14,612 | 5.4 | 94 | 2.61 | 38,137 |
| Nebraska | 13,572 | 14,328 | 5.6 | 92 | 2.54 | 36,393 |
| Arizona | 13,679 | 14,315 | 4.6 | 92 | 2.68 | 38,364 |
| Vermont | 13,320 | 14,302 | 7.4 | 92 | 2.58 | 36,899 |
| Georgia | 13,454 | 14,300 | 6.3 | 92 | 2.69 | 38,467 |
| Iowa | 13,335 | 14,236 | 6.8 | 92 | 2.55 | 36,302 |
| Oregon | 13,239 | 14,041 | 6.1 | 90 | 2.48 | 34,822 |
| Maine | 12,846 | 13,954 | 8.6 | 90 | 2.57 | 35,862 |
| Indiana | 13,124 | 13,914 | 6.0 | 89 | 2.63 | 36,594 |
| Texas | 13,494 | 13,866 | 2.8 | 89 | 2.75 | 38,132 |
| North Carolina | 12,423 | 13,314 | 7.2 | 86 | 2.6 | 34,616 |
| North Dakota | 12,440 | 13,004 | 4.5 | 84 | 2.62 | 34,070 |
| Tennessee | 11,984 | 12,880 | 7.5 | 83 | 2.61 | 33,617 |
| Wyoming | 12,723 | 12,709 | –0.1 | 82 | 2.72 | 34,568 |
| Oklahoma | 12,249 | 12,551 | 2.5 | 81 | 2.55 | 32,005 |
| South Dakota | 11,803 | 12,550 | 6.3 | 81 | 2.59 | 32,505 |
| Montana | 11,726 | 12,347 | 5.3 | 79 | 2.6 | 32,102 |
| Kentucky | 11,268 | 12,059 | 7.0 | 78 | 2.65 | 31,956 |
| South Carolina | 11,286 | 12,004 | 6.4 | 77 | 2.77 | 33,251 |
| Alabama | 11,293 | 11,940 | 5.7 | 77 | 2.69 | 32,119 |
| New Mexico | 11,459 | 11,875 | 3.6 | 76 | 2.78 | 33,013 |
| Idaho | 11,172 | 11,868 | 6.2 | 76 | 2.74 | 32,518 |
| Arkansas | 11,025 | 11,507 | 4.4 | 74 | 2.61 | 30,033 |
| Louisiana | 11,233 | 11,473 | 2.1 | 74 | 2.78 | 31,895 |
| Utah | 10,968 | 11,366 | 3.6 | 73 | 3.19 | 36,258 |
| West Virginia | 10,587 | 11,020 | 4.1 | 71 | 2.63 | 28,983 |
| Mississippi | 9,663 | 10,292 | 6.5 | 66 | 2.81 | 28,921 |

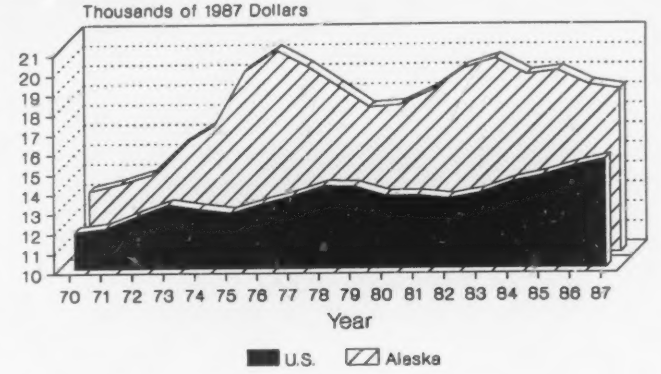
Source: U.S. Department of Commerce, Bureau of Economic Analysis
Note: Income figures in this table are not adjusted (no adjustment has been made for price changes).

industry and regional wage and salary trends within Alaska.

### Alaska/National Wage and Salary Comparisons

Figure 4 illustrates the relative share of each industry in Alaska's and the nation's total payroll. Most striking are the differences in the level of government and manufacturing payroll. Alaska's manufacturing industry's share of total payroll is a fraction of the share it represents nationally, but government's portion of total payroll in Alaska is twice that of its national share. All segments of government, federal, state and local, represented a higher share in Alaska than they do nationally.

## Figure 3
## Alaska and U.S.
## Real Per Capita Income 1970-1987



Source: US Dept of Commerce, BEA

## Table 4
## Alaska Per Capita Income
## 1984-1986

| | 1984 | 1985 | 1986 | Percent of U.S. | Rank in State | 1985-86 Percent Change |
|---|---|---|---|---|---|---|
| Alaska[1] | $18,090 | $18,726 | $18,378 | 125.8 | -- | -2.8 |
| United States | 13,114 | 13,895 | 14,606 | 100.0 | -- | 5.2 |
| Census Areas | | | | | | |
| Aleutian Islands | 13,520 | 17,182 | 16,396 | 112.3 | 12 | -4.6 |
| Anchorage Borough | 20,319 | 20,829 | 20,550 | 140.7 | 5 | -1.3 |
| Bethel | 10,525 | 11,045 | 11,189 | 76.6 | 22 | 1.3 |
| Bristol Bay Borough | 21,346 | 23,911 | 26,133 | 178.9 | 1 | 9.3 |
| Dillingham | 12,546 | 14,584 | 14,419 | 98.7 | 13 | -1.1 |
| Fairbanks North Star Borough | 18,101 | 18,239 | 17,240 | 118.0 | 10 | -5.5 |
| Haines Borough | 18,649 | 21,378 | 23,592 | 161.5 | 2 | 10.4 |
| Juneau Borough | 21,739 | 22,837 | 22,453 | 153.7 | 3 | -1.7 |
| Kenai Peninsula Borough | 15,333 | 15,228 | 13,742 | 94.1 | 17 | -9.8 |
| Ketchikan Gateway Borough | 17,231 | 18,974 | 19,626 | 134.4 | 7 | 3.4 |
| Kodiak Island Borough | 12,432 | 13,924 | 14,257 | 97.6 | 14 | 2.4 |
| Matanuska-Susitna Borough | 17,798 | 14,904 | 13,509 | 92.5 | 18 | -9.4 |
| Nome | 12,816 | 13,667 | 13,747 | 94.1 | 16 | 0.6 |
| North Slope Borough | 27,635 | 24,938 | 21,590 | 147.8 | 4 | -13.4 |
| Northwest Arctic Borough | 12,115 | 12,568 | 12,613 | 86.4 | 19 | 0.4 |
| Prince of Wales-Outer Ketchikan | 14,038 | 14,152 | 14,224 | 97.4 | 15 | 0.5 |
| Sitka Borough | 15,365 | 16,345 | 16,903 | 115.7 | 11 | 3.4 |
| Skagway-Yakutat-Angoon | 14,218 | 16,701 | 18,153 | 124.3 | 9 | 8.7 |
| Southeast Fairbanks | 12,246 | 12,618 | 12,354 | 84.6 | 20 | -2.1 |
| Valdez-Cordova | 16,541 | 20,345 | 19,805 | 135.6 | 6 | -2.7 |
| Wade Hampton | 7,269 | 8,094 | 8,564 | 58.6 | 23 | 5.8 |
| Wrangell-Petersburg | 14,802 | 18,492 | 18,738 | 128.3 | 8 | 1.3 |
| Yukon-Koyukuk | 12,755 | 12,102 | 11,861 | 81.2 | 21 | -2.0 |

[1] Per capita personal income was computed using the sum of the Bureau of the Census's census area estimates as of March 1 of each year. Hence, Alaska's per capita income in this table is slightly different from other tables presented in this table where per capita income is computed using the Statewide population estimate on July 1.

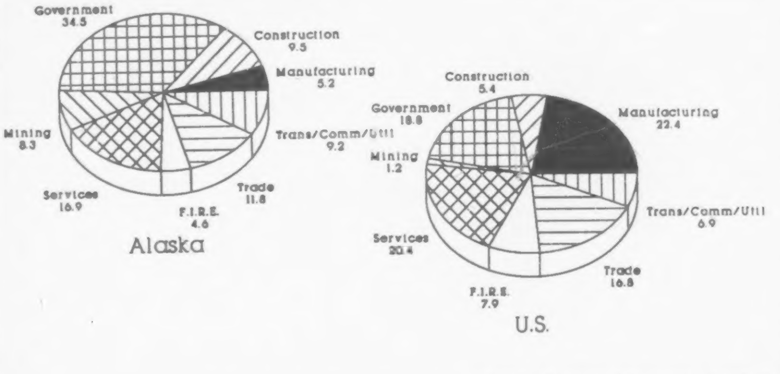
Source: U.S. Department of Commerce; Bureau of Economic Analysis
Note: Income figures in this table are not adjusted (no adjustment has been made for price changes.

Another significant difference in wages and salaries between Alaska and the nation is Alaska's relatively large mining industry payroll. In Alaska over 8% of total payroll is accounted for by the mining industry (primarily related to the oil and gas industry); just over 1% of the nation's payroll comes from the mining industry.

**Alaska's Wage and Salary Trends**

As mentioned earlier, the largest component of personal income comes from wages and salaries. the decline in Alaska total personal income in 1986 and 1987 resulted because of declining payrolls (Figure 5).

## Figure 4
## Nonagricultural Payroll by Industry Alaska and U.S. 1987



Source: Bureau of Economic Analysis

Average monthly wage per job data provide insight into Alaska's income trends. The data help determine the average wage cost to a firm per job, but may overstate or understate the actual monthly earnings per worker. For example, industries characterized by high proportions of part-time workers have lower average monthly wage levels. The average monthly wage is below full-time wage for employees in that industry. The retail and services industries are prime examples of this type of industry.

The opposite effect characterizes industries with low proportions of part-time workers, or industries which typically schedule heavy weekend and overtime work. Prime examples include the construction and oil and gas industries. (Oil and gas is the major component of the mining industry.)

For specific occupational wages in Alaska see Alaska Department of Labor's annual *Alaska Wage Rates* publication.

As Table 5 indicates Alaska's average monthly wage peaked in 1984 and had fallen about $75 by 1987. Most of the

### Table 5
### Alaska Average Monthly Wage By Industry 1980-1987

| Industry | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Mining | $3,802 | $4,030 | $4,254 | $4,550 | $4,703 | $5,311 | $4,921 | $5,171 |
| Construction | 3,342 | 3,756 | 3,941 | 3,860 | 3,651 | 3,383 | 3,425 | 3,315 |
| Manufacturing | 1,846 | 1,828 | 1,955 | 2,065 | 2,115 | 2,000 | 2,019 | 2,116 |
| Trans. Comm. & Util. | 2,458 | 2,731 | 2,915 | 2,931 | 2,946 | 2,797 | 2,896 | 2,718 |
| Trade | 1,342 | 1,446 | 1,522 | 1,598 | 1,624 | 1,546 | 1,610 | 1,409 |
| Wholesale Trade | 2,156 | 2,286 | 2,446 | 2,533 | 2,558 | 2,558 | 2,601 | 2,484 |
| Retail Trade | 1,154 | 1,244 | 1,302 | 1,373 | 1,397 | 1,316 | 1,376 | 1,272 |
| Finance-Ins. & R.E. | 1,565 | 1,687 | 1,915 | 2,017 | 2,122 | 2,252 | 2,173 | 2,258 |
| Service | 1,404 | 1,614 | 1,792 | 1,831 | 1,837 | 1,719 | 1,802 | 1,655 |
| Government | 1,945 | 2,142 | 2,296 | 2,420 | 2,480 | 2,627 | 2,565 | 2,641 |
| Federal | 1,741 | 1,952 | 2,019 | 2,172 | 2,268 | 2,348 | 2,298 | 2,414 |
| State | 2,312 | 2,433 | 2,567 | 2,683 | 2,698 | 2,887 | 2,829 | 2,895 |
| Local | 1,847 | 2,071 | 2,295 | 2,397 | 2,464 | 2,617 | 2,539 | 2,615 |
| State Average | 1,931 | 2,140 | 2,301 | 2,379 | 2,382 | 2,369 | 2,345 | 2,308 |

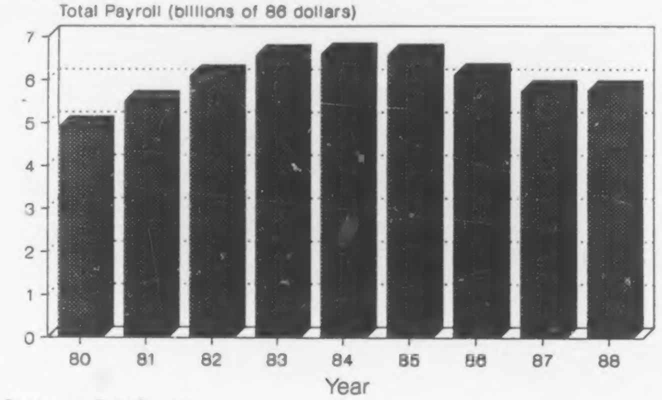
Source: Alaska Department of Labor; Research and Analysis, *Statistical Quarterly*
Note: Income figures in this table are not adjusted (no adjustment has been made for price changes).

decline was due to the reduction of the number of hours worked per month and to a lesser extent the decline in hourly pay.

When price increases are taken into account this decline is somewhat more acute, but with the Anchorage CPI-U (Consumer Price Index) rising less than 6% over that period it does not alter the amount by much. In the early 1980s average monthly wages outpaced inflation. By 1984 the boom was already cooling and wage increases on average did not keep up with inflation. As the economy began to slide so did wages, but not as much as might be expected during Alaska's worst recession in recent memory. Early 1988 data indicate gains in the average monthly wage.

Table 6 contains detailed average monthly wage data for Alaska's 23 census areas. Generally, those areas that contain high concentrations of oil and gas, construction or government employment tend to have a greater average monthly wage than those areas with small concentrations of those industries.

## Figure 5
## Alaska's Nonagricultural Payroll 1980-1988 (88 is estimated)



Source: Ak. Dept Of Labor

### Table 6
### Alaska Average Monthly Wage By Census Area

| AREA NAME | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|---|---|
| Aleutian Islands Census Area | $1,549 | $1,590 | $1,702 | $1,693 | $1,769 | $1,875 | $1,892 | $2,009 |
| Anchorage Borough | 1,921 | 2,075 | 2,208 | 2,289 | 2,327 | 2,346 | 2,385 | 2,363 |
| Bethel Census Area | 1,197 | 1,466 | 1,634 | 1,735 | 1,792 | 1,756 | 1,830 | 1,743 |
| Bristol Bay Borough | 1,695 | 2,045 | 1,989 | 1,904 | 2,099 | 1,860 | 1,960 | 2,013 |
| Dillingham Census Area | 1,637 | 1,764 | 1,849 | 2,150 | 1,862 | 1,858 | 1,863 | 1,828 |
| Fairbanks North Star Borough | 2,049 | 2,210 | 2,384 | 2,474 | 2,414 | 2,432 | 2,347 | 2,320 |
| Haines Borough | 1,256 | 1,539 | 1,728 | 1,897 | 2,008 | 2,089 | 2,237 | 2,360 |
| Juneau Borough | 1,873 | 2,093 | 2,195 | 2,283 | 2,267 | 2,295 | 2,320 | 2,341 |
| Kenai Peninsula Borough | 2,031 | 2,197 | 2,313 | 2,309 | 2,344 | 2,343 | 2,255 | 2,169 |
| Ketchikan Gateway Borough | 1,868 | 1,904 | 2,069 | 2,137 | 2,110 | 2,099 | 2,107 | 2,138 |
| Kodiak Island Borough | 1,534 | 1,636 | 1,878 | 2,003 | 1,857 | 1,968 | 1,620 | 1,757 |
| Matanuska-Susitna Borough | 1,585 | 1,745 | 1,926 | 1,918 | 2,036 | 1,725 | 1,976 | 1,974 |
| Nome Census Area | 1,481 | 1,648 | 1,898 | 1,933 | 1,980 | 1,970 | 1,988 | 2,022 |
| North Slope Borough | 3,800 | 4,415 | 4,778 | 4,849 | 4,911 | 1,951 | 4,341 | 4,079 |
| Northwest Arctic Borough | 1,576 | 1,717 | 1,729 | 1,986 | 2,020 | 4,681 | 1,914 | 1,958 |
| Prince of Wales-Outer Ketch. C.A. | 1,866 | 1,851 | 1,955 | 2,124 | 2,091 | 1,937 | 2,039 | 1,954 |
| Sitka Borough | 1,838 | 2,062 | 2,140 | 2,082 | 2,088 | 2,000 | 2,009 | 2,040 |
| Skagway-Yakutat-Angoon C.A. | 1,435 | 1,623 | 1,832 | 2,055 | 1,703 | 1,759 | 1,786 | 1,746 |
| Southeast Fairbanks Census Area | 1,479 | 1,661 | 1,637 | 1,765 | 1,807 | 1,900 | 2,036 | 1,914 |
| Valdez-Cordova Census Area | 2,222 | 2,407 | 2,488 | 2,411 | 2,501 | 2,507 | 2,483 | 2,475 |
| Wade Hampton Census Area | 1,150 | 1,328 | 1,444 | 1,447 | 1,463 | 1,414 | 1,450 | 1,570 |
| Wrangell-Petersburg Census Area | 1,524 | 1,766 | 1,909 | 2,084 | 1,950 | 2,098 | 2,058 | 2,006 |
| Yukon-Koyukuk Census Area | 2,126 | 2,318 | 2,405 | 2,465 | 2,393 | 2,063 | 2,090 | 2,046 |
| State Average | 1,931 | 2,140 | 2,301 | 2,379 | 2,382 | 2,369 | 2,345 | 2,308 |

Source: Alaska Department of Labor; Research and Analysis Section, *Statistical Quarterly*.
Note: Income figures in this table are in current dollars (no adjustment has been made for price changes.)

In addition, the urban areas of the state tend to have higher monthly wages than the rural areas. In some rural areas, wage and salary employment is scarce. In this case subsistence and other noncash sources of goods and services become the primary means of livelihood. Hence, the average monthly wage data is not an overall measure of the standard of living between areas.

### Poverty Thresholds

Poverty thresholds are used in many government programs. Some programs use the guidelines as a criteria for individual eligibility and others use them for giving priority to persons or families in the provision of assistance or services. Two of the most commonly used poverty guidelines are the Lower Living Standard Income Level (LLSIL) and the Poverty Income Guidelines. Each year these poverty thresholds are published in the *Federal Register* and *Employment and Training Reporter.*

The LLSIL is used by the Job Training Partnership Act (JTPA) to determine eligibility. For this program the term "economically disadvantaged" is defined as 70% of the LLSIL (Table 7). The Poverty Income Guidelines are used for a number of other federal programs and are released by the Department of Health and Human Services (Table 8). These guidelines are a simplified version of the federal government's statistical poverty thresholds used by the Bureau of the Census to estimate the number of persons and families in poverty. Each year the guidelines are updated to account for last year's increase (or decrease) in the Consumer Price Index.

### Summary

This article has provided the most common income measures available for Alaska. Overall these statistics show that Alaska's total income grew enormously during the early 1980s, but by the mid 1980s began to slow down. In 1986 and 1987 Alaskans' income declined, but by early 1988 income declines had ceased and there are indications that a slow to moderate growth trend will take hold.

Table 9 contains some information concerning the income measures discussed in this article and others the Department of Labor produces.

**Table 7**
**1988 Lower Living Standard Income Level (LLSIL)**

| Family Size | Metropolitan Income Criteria for 100% of the LLSIL | Alaska Income Criteria for 70% of the LLSIL | Nonmetropolitan Income Criteria for 100% of the LLSIL | Alaska Income Criteria for 70% of the LLSIL |
|---|---|---|---|---|
| 1 | $9,471 | $6,630 | $8,914 | $6,240 |
| 2 | 15,528 | 10,870 | 14,600 | 10,220 |
| 3 | 21,314 | 14,920 | 20,043 | 14,030 |
| 4 | 26,310 | 18,420 | 24,750 | 17,320 |
| 5 | 31,058 | 21,740 | 29,200 | 20,440 |
| 6 | 36,314 | 25,420 | 34,143 | 23,900 |
| Add for each additional family member: | 5,256 | 3,680 | 4,943 | 3,460 |

**Table 8**
**1988 Poverty Income Guidelines**

| Family Size | Alaska | All States Except Alaska and Hawaii |
|---|---|---|
| 1 | $7,210 | $ 5,770 |
| 2. | 9,660 | 7,730 |
| 3 | 12,110 | 9,690 |
| 4 | 14,560 | 11,650 |
| 5 | 17,010 | 13,610 |
| 6 | 19,460 | 15,570 |
| Add for each additional family member: | 2,450 | 1,960 |

Source: *Federal Register*, Vol. 53, No. 29, August 12, 1988, p. 4213-4214.

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1/ BEA uses the Bureau of the Census population estimates as of July 1 of each year. For 1987 they used a population of 523,000. The Alaska Department of Labor estimates Alaska's population at 537,000. The difference in these two estimates could represent a variance of almost $500 in the per capita figure. However, the other states have similar problems, so relative ranking changes are hard to distinguish.

## Table 9
## A Summary of Income Measures

| | **Personal/Per Capita Income** | **Nonagricultural Wage and Salary Earnings** | **Poverty Income Guidelines** | **Lower Level Standard Income Level (LLSIL)** |
|---|---|---|---|---|
| Description: | Estimates of total personal and per capita income | Total payroll and average monthly wage for nonagricultural workers | Estimated income used to determine program eligibility | Estimated income used to determine program eligibility |
| Responsible Agency: | U.S. Department of Commerce, Bureau of Economic Analysis | Alaska Department of Labor, Research & Analysis | U.S. Department of Commerce, Bureau of Census | U.S. Department of Labor, Employment and Training Administration |
| Source Of Data: | Estimates of wages, salaries, dividends, proprietors' income, rental income, etc. | Reports from employers on employment and wages covered by unemployment insurance | Survey and economy food plan | Urban Family Budget |
| Time Period: | Quarterly<br>Annually | Quarterly<br>Annually | Annually | Annually |
| Industry Detail: | Major Industry | None | None | Major Industry |
| Geographic Detail: | Alaska<br>23 Census Areas | Alaska<br>23 Census Areas | Alaska | Anchorage (Urban)<br>Balance of State (Rural) |
| Published In: | Survey of Current Business | Statistical Quarterly | Federal Register | Federal Register |

| | **Workers With Wages** | **Current Employment Statistics Hours and Earnings** | **Wage Rates for Selected Occupations** |
|---|---|---|---|
| Description: | 20% sample of annual workers with covered wages, mean and median incomes | Sample-based estimates of average hours worked, average weekly wages, and average hourly wages for production workers | High, low, and average hourly wage rates for over 200 occupations |
| Responsible Agency: | Alaska Department of Labor, Research & Analysis | Alaska Department of Labor, Research & Analysis | Alaska Department of Labor, Research & Analysis |
| Source Of Data: | Reports from employers on employment and wages covered by unemployment insurance | Current Employment Statistics program, a voluntary sample of employers | Voluntary mail and telephone survey |
| Time Period: | Quarterly<br>Annually | Monthly<br>Annually | Annually |
| Industry Detail: | Major Industry | Major Industry | None |
| Geographic Detail: | Alaska | Alaska | Alaska<br>6 Regions |
| Published In: | UI Actuarial Report | Alaska Economic Trends | Alaska Wage Rates |

# Alaska's Employment Scene

by John Boucher

## Unemployment Continues to Drop

Alaska's unemployment rate continued to plunge in July, falling to 7.6% from last month's unemployment rate of 8.7% (Table 6 ). The July 1988 unemployment rate was the lowest rate for July since 1977. That was the final year of construction for the Trans-Alaska pipeline. If normal seasonal patterns hold, the unemployment rate could fall under 7.0% in the next two months. While July's unemployment rate was the lowest it has been since September 1985, more than 19,000 Alaskans are still unemployed. Even if Alaska's rate should fall under 7.0%, it would still be above the national average unemployment rate, which in July was 5.5%.

Every region of the state is participating in the recent movement toward a tight labor market. Except Southwest Alaska, all areas of the state had lower unemployment rates than a year ago. Before July, Southwest Alaska had also

### Table 1
### State of Alaska
### Appropriations Totals (millions)

| | FY79 | FY80 | FY81 | FY82 | FY83 | FY84 | FY85 | FY86 | FY87 | FY88 | FY89 (preliminary) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Operating Agencies (Auth.)[1] | | | | | | | | | | | |
| Unrestricted General Funds | $851.7 | $959.6 | $1,364.3 | $1,706.2 | $1,897.8 | $1,958.0 | $2,110.5 | $2,116.5 | $1,844.1 | $1,911.3 | $1,977.1 |
| Other Funds | 297.3 | 349.4 | 393.5 | 476.8 | 539.9 | 479.4 | 575.2 | 672.0 | 666.8 | 653.6 | 711.8 |
| Total Operating Funds | 1,149.0 | 1,309.0 | 1,757.8 | 2,183.0 | 2,437.7 | 2,437.4 | 2,685.7 | 2,788.5 | 2,510.9 | 2,564.9 | 2,688.9 |
| Debt Service[2] | | | | | | | | | | | |
| Unrestr. Gen. Fund (G.O. Bond) | 59.8 | 75.2 | 97.4 | 102.4 | 143.6 | 178.6 | 169.5 | 163.3 | 155.0 | 148.0 | 147.4 |
| Other Funds (Int. Airport R.F.) | 1.9 | 1.9 | 2.6 | 1.8 | 2.0 | 2.0 | 5.6 | 5.6 | 10.2 | 8.4 | 8.8 |
| Total Debt Service | 61.7 | 77.1 | 100.0 | 104.2 | 145.6 | 180.6 | 175.1 | 168.9 | 165.2 | 156.4 | 156.2 |
| Capital (Auth.)[3] | | | | | | | | | | | |
| Unrestricted General Funds | 171.0 | 92.0 | 565.2 | 1,164.9 | 470.1 | 778.4 | 1,241.9 | 471.4 | 337.6 | 173.4 | 98.4 |
| Other Funds | 338.4 | 81.7 | 414.6 | 72.4 | 239.7 | 398.5 | 192.1 | 431.7 | 438.3 | 115.8 | 224.4 |
| Total Capital Funds | 509.4 | 173.7 | 979.8 | 1,238.3 | 709.8 | 1,176.9 | 1,434.0 | 903.1 | 775.9 | 289.2 | 322.8 |
| Loan Programs (Auth.) | | | | | | | | | | | |
| Unrestricted General Funds | 14.0 | 33.5 | 560.1 | 471.8 | 337.0 | 171.9 | 140.0 | 80.4 | 61.0 | 22.6 | 16.7 |
| Other Funds | 0.0 | 0.0 | 0.7 | 1.0 | 1.0 | 20.4 | 0.4 | 0.0 | 6.5 | 18.9 | 9.0 |
| Total Loan Funds | 14.0 | 33.5 | 560.8 | 472.8 | 338.0 | 192.3 | 140.4 | 80.4 | 67.5 | 41.5 | 25.7 |
| **Total** | | | | | | | | | | | |
| Unrestricted General Funds | 1,096.5 | 1,160.3 | 2,587.0 | 3,445.3 | 2,848.5 | 2,086.9 | 3,661.9 | 2,831.6 | 2,397.7 | 2,255.3 | 2,239.6 |
| Other Funds | 637.4 | 433.0 | 811.4 | 552.0 | 782.6 | 900.3 | 773.3 | 1,109.3 | 1,121.8 | 796.7 | 954.0 |
| **Total Funds** | 1,733.9 | 1,593.3 | 3,398.4 | 3,997.3 | 3,631.1 | 3,987.2 | 4,435.2 | 3,940.9 | 3,519.5 | 3,052.0 | 3,193.6 |
| Extraordinary Items | | | | | | | | | | | |
| Unrestricted General Funds | 0.0 | 0.0 | 2,309.5 | 1,167.0 | 708.3 | 300.0 | 510.0 | 138.6 | 0.0 | 250.0 | |
| Other Funds | 0.0 | 0.0 | 0.0 | 0.0 | 41.0 | 198.9 | 155.1 | 403.8 | 544.4 | 436.2 | **numbers not available at press time** |
| Total Extraordinary Items | 0.0 | 0.0 | 2,309.5 | 1,167.0 | 749.3 | 498.9 | 665.1 | 542.4 | 544.5 | 686.2 | |
| TOTAL | | | | | | | | | | | |
| Unrestricted General Funds | 1,096.5 | 1,160.3 | 4,896.5 | 4,612.3 | 3,556.8 | 3,386.9 | 4,171.9 | 2,970.2 | 2,397.7 | 2,326.9 | |
| Other Funds | 637.4 | 433.0 | 811.4 | 552.0 | 823.6 | 1,099.2 | 928.9 | 1,513.1 | 1,666.3 | 1,387.8 | |
| GRAND TOTAL | $1,733.9 | $1,593.3 | $5,707.9 | $5,164.3 | $4,380.4 | $4,486.1 | $5,100.8 | $4,483.3 | $4,064.0 | $3,714.7 | |

[1] Agency "adjusted base" totals one-time, special and supplemental operating approriations.
This category includes local school debt retirement, education, municipal assistance and revenue sharing.
FY79 and FY80 figures are estimated from Executive Budget books.
FY89 contingent appropriation of $34.4 million to science foundation has not been included
FY88 & FY89, General Fund/Program Receipts are included in the General Fund operating budget totals.

[2] FY 79-84: Actual appropriations for general oblibation debt retirement allocated to agencies. FY85-89: Debt service authorizations.

[3] Session totals: OMB has adjusted some figures to reflect repeals and reappropriations and the definition of capital projects enacted in AS 37.07.120(4)

Source: State of Alaska; Office of Management and Budget.

## Table 2
## April FY88 Revised Budget
## Employment Changes by Election District

| Election District | Permanent Positions | FY87 Auth | FY88 Auth | FY89 Auth | Net Change 88-89 | Percent Change |
|---|---|---|---|---|---|---|
| **District 1** (Ketchikan, Wrangell, Petersburg) | Full Time | 310 | 303 | 298 | –5 | –1.7 |
| | Part Time | 174 | 180 | 180 | 0 | 0.0 |
| **District 2** (Inside Passage, Cordova) | Full Time | 51 | 52 | 53 | 1 | 1.9 |
| | Part Time | 77 | 66 | 74 | 8 | 12.1 |
| **District 3** (Baranof, Chichagof) | Full Time | 191 | 182 | 179 | –3 | –1.6 |
| | Part Time | 70 | 75 | 68 | –7 | –9.3 |
| **District 4** (Juneau) | Full Time | 3,341 | 3,072 | 3,259 | 187 | 6.1 |
| | Part Time | 364 | 387 | 383 | –4 | –1.0 |
| **District 5** (Kenai, Cook Inlet) | Full Time | 395 | 387 | 410 | 23 | 5.9 |
| | Part Time | 172 | 170 | 177 | 7 | 4.1 |
| **District 6** (North Kenai, South Coast) | Full Time | 359 | 457 | 543 | 86 | 18.8 |
| | Part Time | 167 | 179 | 181 | 2 | 1.1 |
| **District 7–15** (Anchorage) | Full Time | 5,443 | 5,079 | 5,227 | 148 | 2.9 |
| | Part Time | 651 | 706 | 646 | –60 | -8.5 |
| **District 16** (Matanuska-Susitna) | Full Time | 615 | 596 | 608 | 12 | 2.0 |
| | Part Time | 130 | 135 | 138 | 3 | 2.2 |
| **District 17** (Interior Highways) | Full Time | 175 | 168 | 155 | –13 | –7.7 |
| | Part Time | 188 | 186 | 120 | –66 | –35.5 |
| **District 18–21** (Fairbanks) | Full Time | 3,186 | 3,029 | 3,073 | 44 | 1.5 |
| | Part Time | 465 | 521 | 586 | 65 | 12.5 |
| **District 22** (North Slope, Kotzebue) | Full Time | 97 | 90 | 98 | 8 | 8.9 |
| | Part Time | 34 | 28 | 29 | 1 | 3.6 |
| **District 23** (Norton Sound) | Full Time | 175 | 161 | 169 | 8 | 5.0 |
| | Part Time | 69 | 81 | 74 | –7 | –8.6 |
| **District 24** (West Interior Rivers) | Full Time | 86 | 72 | 72 | 0 | 0.0 |
| | Part Time | 71 | 81 | 80 | –1 | –1.2 |
| **District 25** (Lower Kuskokwim) | Full Time | 233 | 213 | 238 | 25 | 11.7 |
| | Part Time | 50 | 56 | 54 | –2 | –3.6 |
| **District 26** (Bristol Bay, Aleutian Islands) | Full Time | 76 | 75 | 73 | –2 | –2.7 |
| | Part Time | 128 | 144 | 155 | 11 | 7.6 |
| **District 27** (Kodiak, East Alaska Peninsula) | Full Time | 176 | 171 | 168 | –3 | –1.8 |
| | Part Time | 126 | 130 | 131 | 1 | 0.8 |
| **Multi-District** | Full Time | 36 | 33 | 30 | –3 | –9.1 |
| | Part Time | 0 | 0 | 1 | 1 | – |
| Total | Full Time | 14,945 | 14,140 | 14,653 | 513 | 3.6 |
| | Part Time | 2,936 | 3,125 | 3,077 | –48 | –1.5 |
| TOTALS | | 17,881 | 17,265 | 17,730 | 465 | 2.7 |

This report does not include Marine Highway vessel crews, employees of the Court System or the Legislature.

Office of Management and Budget, Division of Budget Review.

been experiencing over-the-year improvement in its labor market. However, weak salmon runs in Bristol Bay contributed to higher local and regional unemployment rates in July. On the other hand, Southeast Alaska, Anchorage-MatSu and the Gulf Coast regions showed significant improvement in their unemployment rates from July 1987.

Other evidence of a tightening labor market is the difficulty some employers have met filling jobs this summer. Newspapers in Ketchikan, Kodiak, Anchorage and Juneau reported employers having difficulty filling certain jobs. Low paying and seasonal jobs have been especially difficult to fill. One reason for the tight labor market in Alaska is the vigorous economy in the lower 48. Individuals who might have come to Alaska for summer employment probably stayed closer to home because they were able to find employment.

### Table 3
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Alaska

| | p/ | r/ | | Changes From: | |
|---|---|---|---|---|---|
| | 7/88 | 6/88 | 7/87 | 6/88 | 7/87 |
| Nonag. Wage & Salary | 223,600 | 216,500 | 225,500 | 7,100 | -1,900 |
| Mining | 9,300 | 9,100 | 8,900 | 200 | 400 |
| Construction | 11,500 | 10,600 | 12,500 | 900 | -1,000 |
| Manufacturing | 22,600 | 16,700 | 22,400 | 5,900 | 200 |
| Seafood Processing | 15,900 | 9,900 | 15.800 | 6,000 | 100 |
| Lumber & Paper Prod. | 3,400 | 3,500 | 3,200 | -100 | 200 |
| All Other Manufacturing | 3,300 | 3,300 | 3,400 | 0 | -100 |
| Transportation | 19,000 | 18,700 | 19,400 | 300 | -400 |
| Trucking & Warehousing | 2,600 | 2,600 | 2,700 | 0 | -100 |
| Water Transportation | 1,200 | 1,100 | 1,300 | 100 | -100 |
| Air Transportation | 5,900 | 5,800 | 5,700 | 100 | 200 |
| All Other Transportation | 5,600 | 5,700 | 5,800 | -100 | -200 |
| Trade | 43,500 | 43,000 | 43,900 | 500 | -400 |
| Wholesale | 7,600 | 7,400 | 7,700 | 200 | -100 |
| Retail | 35,900 | 35,600 | 36,200 | 300 | -300 |
| Gen. Mer.& Apparel | 5,200 | 5,000 | 5,100 | 200 | 100 |
| Food Stores | 6,100 | 6,200 | 6,000 | -100 | 100 |
| Eating & Drinking Pl. | 13,300 | 13,300 | 13,900 | 0 | -600 |
| All Other Retail | 11,300 | 11,100 | 11,200 | 200 | 100 |
| Finance-Ins. & R.E. | 10,900 | 10,800 | 11,300 | 100 | -400 |
| Services | 43,900 | 43,400 | 44,200 | 500 | -300 |
| Government | 62,900 | 64,200 | 62,900 | -1,300 | 0 |
| Federal | 18,200 | 18,200 | 18,500 | 0 | -300 |
| State | 18,400 | 18,500 | 17,800 | -100 | 600 |
| Local | 26,300 | 27,500 | 26,600 | -1,200 | -300 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1987.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

## Employment Trends

July is typically the month when seafood processing employment asserts itself on the Alaskan economy and this July was no exception. Of 7,100 additional jobs in Alaska in July 6,000 of them were in the seafood processing industry. During July one in every 14 wage and salary jobs was in the seafood processing industry. In some regions of the state, such as Southwest Alaska, that ratio is much higher. In Southwest Alaska, one job out of every three was a seafood processing job. The Gulf Coast region of the state had one in every four jobs in seafood processing.

Amazing as these numbers seem, the wage and salary employment counts published in *Alaska Economic Trends* do not include fish harvesting employment. Therefore the total employment impact the fishing industry has on these regions is understated by these numbers. Previous studies by the Alaska Department of Labor show that the number of seafood harvesters in July is about 1.5 times the number of jobs in seafood processing. Assuming this ratio held this summer, the total number of seafood harvesters statewide in July is about 26,000. Combined, harvesting and processing employment topped 40,000 in July.

While the fishing industry numbers seem exceptional, many regions in Southwest Alaska had a disappointing salmon season. This is especially true of the world famous Bristol Bay sockeye run. Through August 13 the Alaska Department of Fish and Game (ADFG) reported 14.3 million sockeye caught in Bristol Bay. This is well below the original forecast for this species. A smaller than expected catch is a double edged sword for Alaska's economy. While fewer fish caught means less seafood processing employment, fishermen have been the beneficiaries of tremendous price hikes for their product.

If Bristol Bay was a disappointment, the Cook Inlet sockeye fishery was a gold rush for harvesters and

### Table 4

## Nonagricultural Wage and Salary Employment By Place of Work

### Anchorage

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 7/88 | r/ 6/88 | 7/87 | 6/88 | 7/87 |
| Nonag. Wage & Salary | 101,800 | 100,500 | 103,550 | 1,300 | -1,750 |
| Mining | 3,700 | 3,550 | 3,150 | 150 | 550 |
| Construction | 5,550 | 5,050 | 6,550 | 500 | -1,000 |
| Manufacturing | 3,000 | 2,700 | 2,950 | 300 | 50 |
| Transportation | 9,700 | 9,600 | 9,950 | 100 | -250 |
| Trucking & Warehousing | 1,550 | 1,500 | 1,650 | 50 | -100 |
| Water Transportation | 350 | 300 | 350 | 50 | 0 |
| Air Transportation | 3,350 | 3,300 | 3,350 | 50 | 0 |
| All Other Transportation | 2,650 | 2,700 | 2,700 | -50 | -50 |
| Trade | 23,650 | 23,550 | 23,850 | 100 | -200 |
| Wholesale | 5,550 | 5,450 | 5,550 | 100 | 0 |
| Retail | 18,100 | 18,100 | 18,300 | 0 | -200 |
| Gen.Merch. & Apparel | 2,450 | 2,400 | 2,450 | 50 | 0 |
| Food Stores | 2,850 | 2,900 | 2,800 | -50 | 50 |
| Eating & Drinking Pl. | 7,000 | 7,000 | 7,350 | 0 | -350 |
| All Other Retail | 5,800 | 5,800 | 5,700 | 0 | 100 |
| Finance-Ins. & R.E. | 7,100 | 7,100 | 7,600 | 0 | -500 |
| Services | 24,250 | 24,050 | 24,150 | 200 | 100 |
| Government | 24,850 | 24,900 | 25,350 | -50 | -500 |
| Federal | 10,550 | 10,500 | 10,700 | 50 | -150 |
| State | 6,200 | 6,300 | 6,300 | -100 | -100 |
| Local | 8,100 | 8,100 | 8,350 | 0 | -250 |

### Anchorage-MatSu

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 7/88 | r/ 6/88 | 7/87 | 6/88 | 7/87 |
| Nonag. Wage & Salary | 108,500 | 106,950 | 110,000 | 1,550 | -1,500 |
| Mining | 3,700 | 3,600 | 3,150 | 100 | 550 |
| Construction | 5,800 | 5,250 | 6,800 | 550 | -1,000 |
| Manufacturing | 3,150 | 2,800 | 3,100 | 350 | 50 |
| Transportation | 10,400 | 10,300 | 10,650 | 100 | -250 |
| Trade | 25,550 | 25,300 | 25,600 | 250 | -50 |
| Finance-Ins. & R.E. | 7,600 | 7,550 | 8,050 | 50 | -450 |
| Services | 25,550 | 25,200 | 25,250 | 350 | 300 |
| Government | 26,750 | 26,950 | 27,400 | -200 | -650 |

### Gulf Coast

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 7/88 | r/ 6/88 | 7/87 | 6/88 | 7/87 |
| Nonag. Wage & Salary | 24,100 | 21,350 | 23,850 | 2,750 | 250 |
| Mining | 750 | 750 | 800 | 0 | -50 |
| Construction | 1,100 | 1,000 | 1,250 | 100 | -150 |
| Manufacturing | 7,500 | 4,700 | 7,250 | 2,800 | 250 |
| Seafood Processing | 6,900 | 4,100 | 6,650 | 2,800 | 250 |
| All Other Manufacturing | 600 | 600 | 600 | 0 | 0 |
| Transportation | 1,400 | 1,350 | 1,400 | 50 | 0 |
| Trade | 4,100 | 4,100 | 4,050 | 0 | 50 |
| Wholesale | 600 | 550 | 650 | 50 | -50 |
| Retail | 3,500 | 3,550 | 3,400 | -50 | 100 |
| Finance-Ins. & R.E. | 600 | 550 | 600 | 50 | 0 |
| Services | 3,550 | 3,500 | 3,600 | 50 | -50 |
| Government | 5,100 | 5,400 | 4,900 | -300 | 200 |
| Federal | 500 | 500 | 600 | 0 | -100 |
| State | 1,600 | 1,550 | 1,450 | 50 | 150 |
| Local | 3,000 | 3,350 | 2,850 | -350 | 150 |

### Fairbanks

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 7/88 | r/ 6/88 | 7/87 | 6/88 | 7/87 |
| Nonag. Wage & Salary | 26,450 | 26,500 | 26,750 | -50 | -300 |
| Mining | 100 | 100 | 200 | 0 | -100 |
| Construction | 1,850 | 1,700 | 2,000 | 150 | -150 |
| Manufacturing | 550 | 550 | 600 | 0 | -50 |
| Transportation | 2,300 | 2,300 | 2,400 | 0 | -100 |
| Trucking & Warehousing | 400 | 400 | 400 | 0 | 0 |
| Air Transportation | 350 | 350 | 300 | 0 | 50 |
| All Other Transportation | 600 | 600 | 650 | 0 | -50 |
| Trade | 6,250 | 6,250 | 5,850 | 0 | 400 |
| Wholesale | 750 | 750 | 800 | 0 | -50 |
| Retail | 5,500 | 5,500 | 5,050 | 0 | 450 |
| Food Stores | 850 | 850 | 700 | 0 | 150 |
| All Other Retail | 4,650 | 4,650 | 4,350 | 0 | 300 |
| Finance-Ins. & R.E. | 850 | 850 | 950 | 0 | -100 |
| Services | 5,900 | 5,800 | 6,000 | 100 | -100 |
| Government | 8,650 | 8,950 | 8,750 | -300 | -100 |
| Federal | 2,950 | 2,950 | 3,000 | 0 | -50 |
| State | 3,400 | 3,550 | 3,300 | -150 | 100 |
| Local | 2,300 | 2,450 | 2,450 | -150 | -150 |

### Interior

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 7/88 | r/ 6/88 | 7/87 | 6/88 | 7/87 |
| Nonag. Wage & Salary | 30,500 | 30,450 | 30,950 | 50 | -450 |
| Mining | 300 | 300 | 350 | 0 | -50 |
| Construction | 2,100 | 1,900 | 2,250 | 200 | -150 |
| Manufacturing | 600 | 550 | 600 | 50 | 0 |
| Transportation | 2,650 | 2,600 | 2,800 | 50 | -150 |
| Trade | 6,650 | 6,650 | 6,350 | 0 | 300 |
| Finance-Ins. & R.E. | 900 | 900 | 1,050 | 0 | -150 |
| Services | 6,500 | 6,400 | 6,700 | 100 | -200 |
| Government | 10,800 | 11,150 | 10,850 | -350 | -50 |

### Southeast Alaska

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ 7/88 | r/ 6/88 | 7/87 | 6/88 | 7/87 |
| Nonag. Wage & Salary | 31,350 | 30,200 | 31,300 | 1,150 | 50 |
| Construction | 1,100 | 1,050 | 1,250 | 50 | -150 |
| Manufacturing | 5,450 | 4,600 | 5,350 | 850 | 100 |
| Seafood Processing | 2,000 | 1,050 | 2,000 | 950 | 0 |
| Lumber & Paper Prod. | 3,200 | 3,300 | 3,100 | -100 | 100 |
| All Other Manufacturing | 250 | 250 | 250 | 0 | 0 |
| Transportation | 2,400 | 2,400 | 2,450 | 0 | -50 |
| Trade | 4,950 | 4,850 | 5,050 | 100 | -100 |
| Wholesale | 450 | 450 | 450 | 0 | 0 |
| Retail | 4,500 | 4,400 | 4,600 | 100 | -100 |
| Finance-Ins. R.E. | 1,150 | 1,150 | 1,100 | 0 | 50 |
| Services | 4,950 | 4,900 | 5,100 | 50 | -150 |
| Government | 11,150 | 11,100 | 10,900 | 50 | 250 |
| Federal | 2,050 | 1,950 | 2,050 | 100 | 0 |
| State | 5,150 | 5,100 | 4,950 | 50 | 200 |
| Local | 3,950 | 4,050 | 3,900 | -100 | 50 |

**For the first time since FY 85 there is an increase in the overall amount of funds committed to capital spending**

processors. The upper Cook Inlet sockeye fishery looks to be the second largest catch ever recorded. In addition the weak Bristol Bay run and the resulting demand for sockeye pushed prices paid to fisherman to record levels. ADFG reported that ex-vessel value paid for fish will exceed $150 million. If 40% of the ex-vessel value was paid to fishermen as wages, the $60 million dollars in wages paid in this fishery would nearly equal the entire *annual* payroll in the hotel and motel industry in 1987.

Other than seafood processing, employment gains in other industries were predominantly small seasonal increases. The construction industry added 900 jobs statewide, a good portion of which was road construction or heavy construction. Residential and commercial construction continues to be a drag on the construction industry. The resulting over-the-year job loss in the construction sector is now 1,000 jobs.

Local government employment took the largest decline in July, losing 1,200 jobs. The contraction was the result of local school districts continuing to let go of staff for the summer.

## The State's Fiscal Year 89 Budget

In many other states completion of the state's spending plan for the current fiscal year is an item of limited interest. In Alaska, state government acts as a basic industry because of the resident employment, wages and income generated from oil revenue. Since state government is such a key player, economy watchers monitor state spending to determine the direction the economy will take during the next 12 months.

If one phrase could describe the FY 89 budget it would be "steady as she goes." The preliminary state spending plan does not differ tremendously in overall state spending from FY 88. This is probably the most significant development with the FY 89 budget. For the past ten years Alaska's budget has been characterized by fluctuation from year to year. In the early '80s increasing state spending was one of the catalysts for rapid employment growth. In the last three years declining state spending was among the reasons for declining employment. In FY 89, the state budget should provide a steadying influence to Alaska's economy and will provide additional employment opportunities

### Table 5
### Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 7/88 | R/ 6/88 | 7/87 | P/ 7/88 | R/ 6/88 | 7/87 | P/ 7/88 | R/ 6/88 | 7/87 |
| Mining | $1,123.20 | $1,183.36 | $1,090.68 | 48.0 | 50.1 | 48.8 | $23.40 | $23.62 | $22.35 |
| Construction | 1,062.20 | 1,050.03 | 1,017.56 | 42.9 | 43.3 | 42.1 | 24.76 | 24.25 | 24.17 |
| Manufacturing | 462.78 | 501.48 | 458.72 | 44.8 | 44.3 | 47.0 | 10.33 | 11.32 | 9.76 |
| Seafood Processing | 384.19 | 373.01 | 390.95 | 46.4 | 45.6 | 49.3 | 8.28 | 8.18 | 7.93 |
| Lumber & Paper Prod | 588.66 | 638.73 | 580.78 | 38.2 | 42.3 | 38.9 | 15.41 | 15.10 | 14.93 |
| Trans., Comm. & Util. | 612.61 | 575.94 | 584.07 | 37.4 | 36.2 | 36.3 | 16.38 | 15.91 | 16.09 |
| Trade | 394.40 | 375.76 | 381.98 | 35.5 | 33.7 | 35.5 | 11.11 | 11.15 | 10.76 |
| Wholesale | 580.14 | 547.56 | 534.71 | 42.1 | 39.0 | 41.1 | 13.78 | 14.04 | 13.01 |
| Retail | 335.00 | 320.00 | 329.31 | 33.4 | 32.0 | 33.5 | 10.03 | 10.00 | 9.83 |
| Finance-Ins. & R.E | 389.76 | 381.92 | 381.90 | 34.8 | 34.1 | 33.5 | 11.20 | 11.20 | 11.40 |

Benchmark March 1987

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] Excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

for Alaskans.

Stable spending does not mean that the budget pie will be distributed the exact same way in FY 89 as it was in FY 88. Table 1 is a historical summary of Alaska's budget.

The most notable change from FY 88 to FY 89 is increased state spending on capital projects. For the first time since FY 85 there was an increase in the overall amount of funds committed to capital spending. However it should be noted that increased capital spending did not come from a greater commitment from the state general fund. The other funds portion, which is predominantly federal funds, increased substantially. This allowed overall capital spending to increase.

The other notable change in the budget was the continuing drop in the amount of funds committed to loan programs. This portion has shrunk steadily since FY 83. In recent years, the largest general fund loan program has been the postsecondary education student loan program. A legislative decision in 1987 to shift to bonding has reduced that expenditure significantly, allowing the loan program to continue while freeing up general fund monies for other purposes.

## Employment Trends

The impact of increases in the state's operating budget on employment is expected to add 500 additional jobs in state government, an increase of more than 2%. Most of the employment additions are in four areas; Anchorage, Fairbanks, Juneau and Seward (Table 2). Estimates of a multiplier which would quantify the induced effect on the economy suggest that an additional 300 jobs will be created due to the employment increase.

According to the University of Alaska's Institute of Social and Economic Research (ISER), from every $100 million in state spending on capital projects about 500-600 direct jobs are created in the economy. The effect of the additional capital projects spending in FY 89 would be about 150-200 more jobs created by capital spending than in FY 88. The induced effect would create an additional 90-120 jobs.

All totaled, the FY 89 budget should add 650-700 jobs directly to the Alaska economy. Induced employment will raise this figure to between 1000 and 1100 additional jobs.

In addition to employment created by direct state spending on operating and capital expenditures, the budget plays a crucial role in the level of local government employment. Monies are appropriated by the state directly to local government entities to underwrite their operating expenses. Examples are state appropriations to local school districts, municipal assistance, revenue sharing and direct capital grants to local governments.

The municipal assistance and revenue sharing appropriations for FY 89 are exactly the same as they were for FY 88. Since funding allocations generally do not change significantly from year to year each local government can count on approximately the same amount of money as it received last year from this revenue source. Theoretically there will be little or no change in the amount of employment created by these state expenditures.

This is not to say that there would be no change in the overall level of local government employment during the state fiscal year. Most local government entities do not rely on the state for all of their revenue. Property taxes or sales taxes for example are often used by local governments to raise revenue. If the "other" sources of revenue are not as productive for the local government entity during the next fiscal year, they still may be faced with an overall decline in spending and may have to cut employment.

## Will Revenue be a Problem?

The state's FY 89 budget should provide a measure of stability to Alaska's economy and some additional employment opportunities for Alaskans. However, there has been some apprehension recently that the

**The FY 89 budget should add 650-700 jobs directly to the Alaska economy**

budget was based on revenue projections and oil prices which are optimistic given the current oil market. If oil prices continue at their current level, the state could be facing a $350 million deficit by the end of the fiscal year. It should be stressed that it is early in the fiscal year and there have recently been some major developments with crucial Middle East oil producers. It is too early to predict what effect the Iran-Iraq cease fire will have on prices or what direction prices will take in the fall and winter quarters. The above employment increases depend on higher prices than are currently being experienced in the market.

If the state should find itself in the position of running a deficit halfway through the fiscal year, policy makers will be faced with a dilemma. Would they tend to cut expenditures or explore alternate sources of revenue to make up the deficit? If past precedent has been an indication, the tendency has been to cut expenditures rather than either raise taxes or tap the permanent fund. Given these circumstances and the proven volatility of the world oil market, caution is advised when counting on an economic expansion driven by state expenditure during FY 89.

## Table 6
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 7/88 | R/ 6/88 | 7/87 | P/ 7/88 | R/ 6/88 | 7/87 | P/ 7/88 | R/ 6/88 | 7/87 | P/ 7/88 | R/ 6/88 | 7/87 |
| Alaska Statewide | 255,025 | 251,071 | 265,978 | 19,420 | 21,735 | 25,171 | 7.6 | 8.7 | 9.5 | 235,605 | 229,336 | 240,807 |
| Anch.-MatSu Region | 129,433 | 128,748 | 135,230 | 9,517 | 10,286 | 12,070 | 7.4 | 8.0 | 8.9 | 119,916 | 118,462 | 123,160 |
| Anchorage Borough | 114,174 | 113,771 | 119,480 | 7,182 | 8,088 | 9,258 | 6.3 | 7.1 | 7.7 | 106,992 | 105,683 | 110,222 |
| MatSu Borough | 15,259 | 14,977 | 15,750 | 2,335 | 2,198 | 2,812 | 15.3 | 14.7 | 17.9 | 12,924 | 12,779 | 12,938 |
| Gulf Coast Region | 31,392 | 28,953 | 32,609 | 2,267 | 2,873 | 3,330 | 7.2 | 9.9 | 10.2 | 29,125 | 26,080 | 29,279 |
| Kenai Peninsula Bor | 19,984 | 18,436 | 20,988 | 1,793 | 2,147 | 2,701 | 9.0 | 11.6 | 12.9 | 18,191 | 16,289 | 18,287 |
| Kodiak Island Bor | 6,917 | 6,404 | 7,066 | 211 | 399 | 325 | 3.1 | 6.2 | 4.6 | 6,706 | 6,005 | 6,741 |
| Valdez-Cordova | 4,491 | 4,113 | 4,555 | 263 | 327 | 304 | 5.9 | 8.0 | 6.7 | 4,228 | 3,786 | 4,251 |
| Interior Region | 37,230 | 37,762 | 39,440 | 3,793 | 4,272 | 4,964 | 10.2 | 11.3 | 12.6 | 33,437 | 33,490 | 34,476 |
| Fairbanks North Star Br | 32,104 | 32,481 | 33,914 | 3,214 | 3,546 | 4,126 | 10.0 | 10.9 | 12.2 | 28,890 | 28,935 | 29,788 |
| Southeast Fairbanks | 2,166 | 2,176 | 2,295 | 216 | 222 | 284 | 10.0 | 10.2 | 12.4 | 1,950 | 1,954 | 2,011 |
| Yukon-Koyukuk | 2,960 | 3,105 | 3,231 | 363 | 504 | 554 | 12.3 | 16.2 | 17.1 | 2,597 | 2,601 | 2,677 |
| Northern Region | 8,194 | 8,310 | 8,358 | 910 | 926 | 1,020 | 11.1 | 11.1 | 12.2 | 7,284 | 7,384 | 7,338 |
| Nome | 3,159 | 3,185 | 3,225 | 387 | 375 | 433 | 12.3 | 11.8 | 13.4 | 2,772 | 2.810 | 2,792 |
| North Slope Borough | 2,867 | 2,900 | 2,875 | 186 | 182 | 174 | 6.5 | 6.3 | 6.1 | 2,681 | 2,718 | 2,701 |
| Northwest Arctic Bor | 2,168 | 2,225 | 2,258 | 337 | 369 | 413 | 15.5 | 16.6 | 18.3 | 1,831 | 1,856 | 1,845 |
| Southeast Region | 35,112 | 34,392 | 36,523 | 1,901 | 2,325 | 2,818 | 5.4 | 6.8 | 7.7 | 33,211 | 32,067 | 33,705 |
| Haines Borough | 888 | 889 | 940 | 50 | 80 | 90 | 5.6 | 9.0 | 9.6 | 838 | 809 | 850 |
| Juneau Borough | 15,560 | 15,147 | 16,198 | 752 | 848 | 1,171 | 4.8 | 5.6 | 7.2 | 14,808 | 14,299 | 15,027 |
| Ketchikan Gateway Br | 6,936 | 6,789 | 7,164 | 374 | 453 | 504 | 5.4 | 6.7 | 7.0 | 6,562 | 6,336 | 6,660 |
| Pr. of Wales-Outer Ktch. | 2,610 | 2,641 | 2,706 | 230 | 343 | 290 | 8.8 | 13.0 | 10.7 | 2,380 | 2,298 | 2,416 |
| Sitka Borough | 4,196 | 4,113 | 4,357 | 213 | 268 | 315 | 5.1 | 6.5 | 7.2 | 3,983 | 3,845 | 4,042 |
| Skagway-Yakutat-Ang. | 1,618 | 1,582 | 1,676 | 148 | 163 | 184 | 9.1 | 10.3 | 11.0 | 1,470 | 1,419 | 1,492 |
| Wrangell-Petersburg | 3,304 | 3,231 | 3,482 | 134 | 170 | 264 | 4.1 | 5.3 | 7.6 | 3,170 | 3,061 | 3,218 |
| Southwest Region | 13,664 | 12,906 | 13,818 | 1,032 | 1,053 | 969 | 7.6 | 8.2 | 7.0 | 12,632 | 11,853 | 12,849 |
| Aleutian Islands | 3,773 | 3,541 | 3,793 | 135 | 128 | 93 | 3.6 | 3.6 | 2.5 | 3,638 | 3,413 | 3,700 |
| Bethel | 5,349 | 5,040 | 5,479 | 503 | 493 | 549 | 9.4 | 9.8 | 10.0 | 4,846 | 4,547 | 4,930 |
| Bristol Bay Borough | 472 | 457 | 462 | 33 | 45 | 16 | 7.0 | 9.8 | 3.5 | 439 | 412 | 446 |
| Dillingham | 2,354 | 2,246 | 2,400 | 97 | 128 | 104 | 4.1 | 5.7 | 4.3 | 2,257 | 2,118 | 2,296 |
| Wade Hampton | 1,716 | 1,622 | 1,684 | 264 | 259 | 207 | 15.4 | 16.0 | 12.3 | 1,452 | 1,363 | 1,477 |

P/ = Preliminary R/ = Revised 1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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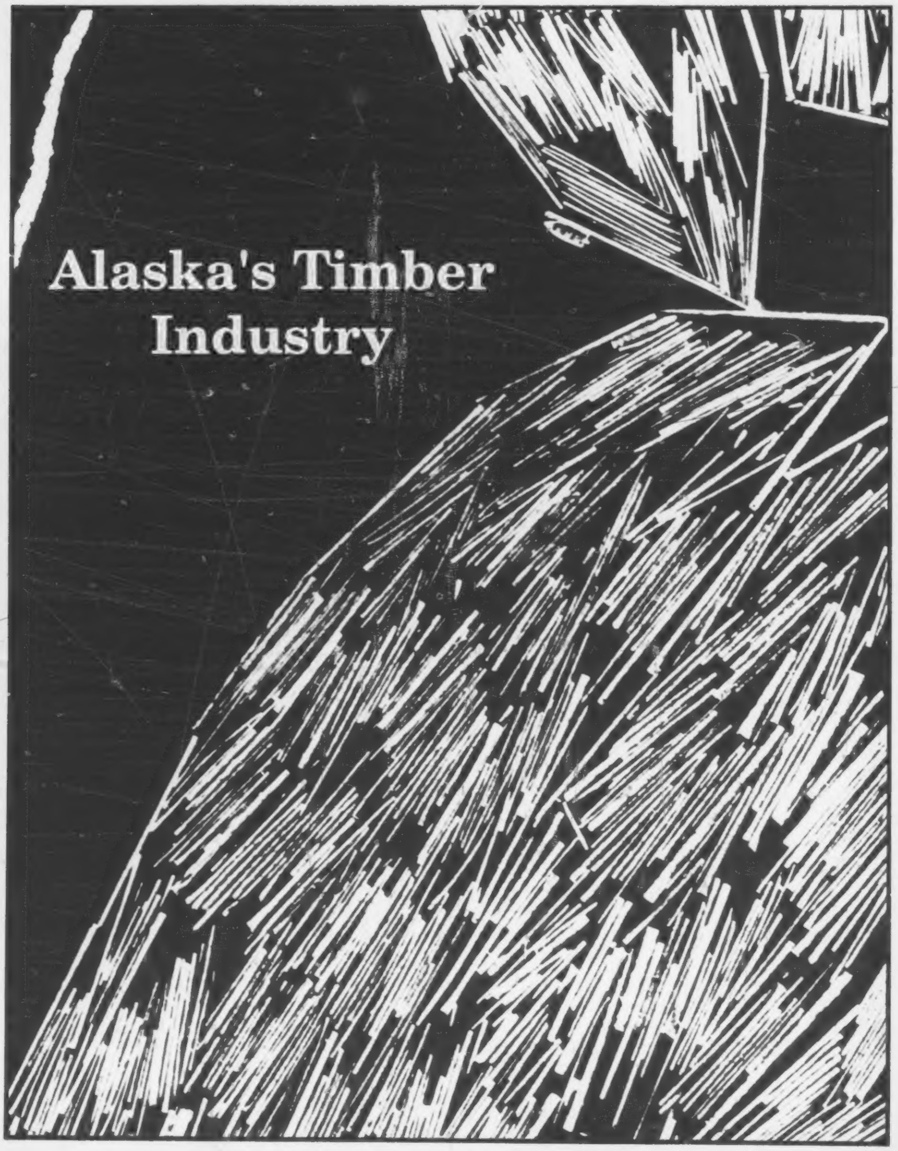
# ALASKA ECONOMIC TRENDS

October 1988



## Alaska's Timber Industry

## A $20 Billion Economy-Alaska's Gross State Product

## Alaska's Employment Scene-Have We Hit Bottom Yet?

Alaska Economic Trends is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

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# Alaska Economic Trends

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**October 1988**
**Volume 8**
**Issue 10**

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**The following notes pertain to Nonagricultural Wage and Salary Employment Tables:**

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates

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# Alaska's Timber Industry

By Brian N. Rae

There isn't much good news for Alaska's timber industry. There hasn't been for years. Most of the programs seen as subsidizing the industry today were created to make up for past blows to the industry. There have always been other places that could produce more product less expensively. Aside from a small percentage of very high quality timber, Alaskan timber is not significantly different from that of other areas. A high percentage of Alaskan timber is sold on the world market, particularly to Japan. Shifts in currency exchange rates impact most domestic producers. Alaskan producers live or die by exchange rates.

Still Alaska's timber industry survives. Several factors account for its continued existence. Some are alluded to above and others, through public debates on their merits, are common knowledge to most Alaskans. The industry has seen tremendous change over the past several years. The cumulative impact of all factors dictate the health of the industry, and continuing changes in these factors will affect the industry.

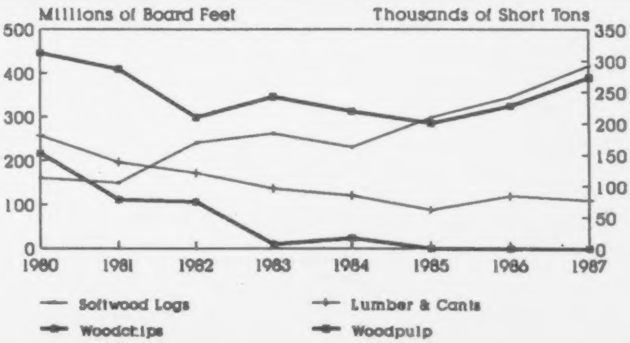
**Employment in the timber industry fell sharply from a high in 1980 through 1985, losing one-third of its employment**

### Market Forces in the Alaskan Timber Industry

Alaskan timber has a weak position in the world market. While some products are unique and in high demand, most Alaskan timber can be easily replaced by products from other areas. Alaskan producers are last in first out suppliers. This means that when the market is strong and other factors are favorable for Alaskan producers, their product can compete with that of other areas. As the market weakens or production costs increase, Alaskan producers are the first driven out of the market.

Alaska's timber industry must contend with the fluctuations of the world markets. Changes in relative prices among different countries' timber have large impacts on sales. The concept of relative price changes is important. If the price of Canadian timber drops while Alaska's stays the same, then the Alaska product's price has increased relative to the Canadian product. Currency movements are the major cause of relative price changes. Movements between a supplier's and a consumer's currency will affect sales, but currency movements among suppliers often have as much, if not more, effect.

**Figure 1**
**Forest Product Exports from Alaska by Product Type-Calendar Years 1980-1987**



Source: U.S. Forest Service
Logs, Lumber & Cants in Board Feet
Woodchips and Woodpulp in Short Tons

For example, devaluation of the yen hurts the entire industry, since foreign products become more expensive for Japanese consumers. By itself, devaluation of the yen would cause a drop in the Japanese demand for timber. There are, however, few substitutes for wood in Japan, the main consumer of Alaskan timber. The tight grained, old growth spruce is used for everything from fine furniture to exposed ceiling beams. It is approaching luxury item status, not solely a construction material but a sign of affluence and a thing of beauty.

For these reasons, demand for prime, old growth timber should not drop sharply. Demand could drop sharply for **Alaskan** old growth timber if the Canadian dollar devalues in relation to the U.S. dollar. The Canadian product would become relatively less expensive to Japanese consumers, hindering the export of Alaskan timber.

Several other factors can affect the price of Canadian timber in comparison to Alaskan timber. In the early 1980s, with depressed market conditions lowering demand, stumpage fees (the price paid for standing timber) for Canadian producers were lowered. The U.S. government, pressured by U.S. producers claiming unfair competition, threatened to restrict imports of Canadian lumber during the mid 1980s. In 1986, the Canadian government imposed an export tax on lumber shipped to the U.S., raising costs for Canadian producers doing business with the U.S.

Under these conditions, more lumber from British Columbia was available for export to other countries, competing directly with Alaskan products. The U.S. is the main consumer of Canadian lumber; only a small percentage is exported to Japan. However, the Canadian timber industry dwarfs the Alaskan industry in output. Much of the Canadian product exported directly competes with Alaskan products. A small change in Canadian exports could represent a large change in Alaska's share of premium wood products in the world market.

### Table 1
### Tongass National Forest Receipts and Payments to State (in thousands)
### FFY 80 through FFY 87

| Federal Fiscal Year | Receipts | Payments |
|---|---|---|
| 1980 | $26,024 | $6,506 |
| 1981 | 15,008 | 3,752 |
| 1982 | 21,623 | 5,406 |
| 1983 | 5,366 | 1,341 |
| 1984 | 4,063 | 1,016 |
| 1985 | 209 | 52 |
| 1986 | 1,967 | 492 |
| 1987 | (2,034)[1] | |

[1] Negative receipts were reported in 1987 because of retroactive stumpage fee reductions on lease agreements.

Source: U.S. Department of Agriculture, Forest Service, Alaska Region. Timber Supply and Demand 1987. Alaska National Interest Conservation Act Section 706(a) Report Number 7. May 1988.

In December, 1987 the Canadian tax on exports was removed and replaced with increased stumpage fees. This could have two positive effects on Alaska's timber industry. When the export tax was in place, the cost of selling Canadian timber to U.S. firms was more expensive than selling to other foreign firms. Without the export tax, the U.S. is a more attractive trading partner. More Canadian timber should be sold in the U.S. This will remove a portion of the Canadian lumber competing with Alaskan lumber on the world market. Consumption of Canadian lumber might increase in the U.S. if this leads to a price decrease.

The increased stumpage fees also increased production costs for all Canadian timber products, including those destined for locations outside the U.S. All other things being equal, this decreases the relative price for Alaskan timber and strengthens its position in the world market.

To compensate Canadian firms for increased stumpage fees, lower shipping rates for timber products might be implemented on the government owned railroad. A potential savings to Alaskan producers could be realized by shipping products to Prince Rupert or Vancouver, with transport by the Canadian railroad to markets in the lower 48. While rail transport will be less expensive than before, additional savings will come from a firm's ability to use foreign hulled vessels, since provisions of the Jones Act will not apply. 1/

Besides the cost of buying the timber and shipping it to market, other production costs could affect the price of Canadian timber in relation to Alaskan timber. A recent labor settlement in British Columbia could help Alaska's position in the world market. Canadian mill workers recently received, on average, a 16% increase in wages. Alaskan workers several years ago accepted wage reductions to make Alaskan timber more competitive and to protect their jobs. Comparisons of labor costs are difficult. Changes in currency and worker productivity rates can obscure changes in the real cost of labor. Studies conducted in Canada showed that their timber industry employment decreased at a more rapid rate between 1980 and

### Table 2
### Volume prepared, offered, sold and harvested in Tongass National Forest Short term sales program, FFY 1980-1989 (Net sawlog volume)

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| New volume prepared | 194 | 148 | 86 | 73 | 195 | 125 | 172 | 54 | 84 | 100 | 1,231 |
| Volume redesigned | 0 | 0 | 0 | 12 | 0 | 85 | 110 | 52 | 0 | 5 | 264 |
| Volume offered-new | 176 | 151 | 115 | 184 | 178 | 136 | 84 | 98 | 84 | 100 | 1,306 |
| Volume sold | 173 | 144 | 75 | 69 | 45 | 36 | 174 | 150 | 84 | 105 | 1,055 |
| Volume lost | 0 | 0 | 4 | 37 | 5 | 70 | 12 | 48 | 0 | 0 | 176 |
| Volume reoffered & sold | 0 | 15 | 9 | 2 | 14 | 0 | 90 | 52 | 0 | 0 | 182 |
| Volume ready to sell | 100 | 104 | 111 | 78 | 223 | 242 | 228 | 84 | 84 | 79 | 1,333 |
| Volume harvested | 114 | 125 | 132 | 46 | 50 | 32 | 50 | 63 | 125 | 120 | 857 |
| Volume uncut under contract | — | — | — | — | — | — | — | 438 | 397 | 382 | — |

Source: U.S. Department of Agriculture, Forest Service, Alaska Region
Timber Supply and Demand 1987. Alaska National Interest Conservation Act
Section 706(a) Report Number 7. May 1988.

### Table 3
### Forest Product Exports from Alaska to All Destinations 1980-1987 Calendar Year 1980-87[1]

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | (e)<br>1987 |
|---|---|---|---|---|---|---|---|---|
| Softwood Logs | | | | | | | | |
| Volume (MMBF) | 161 | 149 | 241 | 262 | 232 | 299 | 346 | 417 |
| Value ($1,000) | 85,489 | 71,690 | 115,333 | 111,587 | 91,844 | 115,820 | 137,580 | 179,190 |
| Unit Value $/MBF | 533 | 481 | 478 | 426 | 397 | 387 | 398 | 429 |
| Lumber and Cants | | | | | | | | |
| Volume (MMBF) | 257 | 196 | 172 | 137 | 121 | 88 | 120 | 111 |
| Value ($1,000) | 89,372 | 59,733 | 56,692 | 41,000 | 34,336 | 23,083 | 32,083 | 30,264 |
| Unit Value $/MBF | 348 | 305 | 330 | 300 | 284 | 263 | 267 | 273 |
| Woodchips | | | | | | | | |
| Volume (MSTN) | 151 | 78 | 74 | 7 | 17 | 0.0 | 0.0 | 0.0 |
| Value ($1,000) | 11,436 | 5,716 | 5,116 | 230 | 767 | 0 | 0 | 0 |
| Unit Value $/STN | 76 | 74 | 69 | 35 | 47 | 0.00 | 0.00 | 0.00 |
| Woodpulp | | | | | | | | |
| Volume (MSTN) | 312 | 286 | 209 | 242 | 219 | 200 | 228 | 274 |
| Value ($1,000) | 153,247 | 140,494 | 97,089 | 117,783 | 97,345 | 74,153 | 89,167 | 128,239 |
| Unit Value $/STN | 491 | 491 | 464 | 487 | 445 | 370 | 392 | 469 |
| TOTAL VALUE ($1,000) | 339,544 | 277,715 | 275,271 | 270,600 | 214,339 | 213,057 | 258,830 | 337,693 |

[1] Volumes exported are in millions of board feet (MMBF) of thousands of short tons (MSTN). Values are free along ship (FAS) in thousands of nominal dollars. Unit values are dollars per unit.

(e): estimate

Source: U.S. Department of Agriculture, Forest Service, Alaska Region from data provided by the U.S. Department of Commerce 1987.

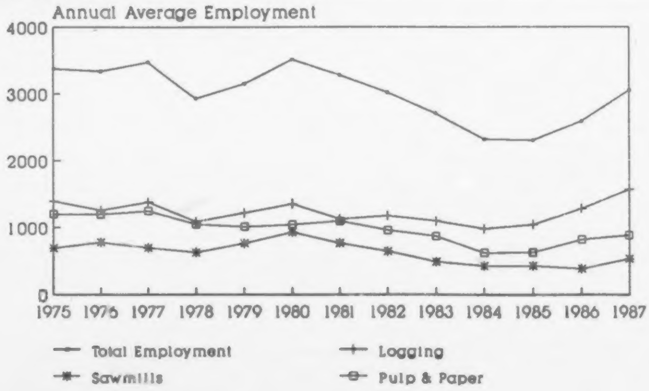
**In 1987 Japan purchased 65% of the export logs and 98% of Alaskan lumber**

1985 than did production. Similar results could be expected in Alaska, however care must be taken with these types of comparisons since the product mix is different over these years. In 1987, round logs were a higher percentage of exported timber, and are the least labor intensive product (Figure 1 and Table 3). All other things being equal, wage increases in competing countries help Alaska's position in the world market.

In addition to changes in production costs, an international agreement might affect timber sales. In 1987 Japan purchased 65% of the export logs and 98% of Alaskan lumber. Japan has always been a major importer of Alaskan timber products, but Japan also imports from the Soviet Union, New Zealand, the Pacific Northwest and British Columbia. With Japan's emergence as a world economic power, and their growing balance of trade surplus with the U.S., pressures are mounting for Japan to import more U.S. products. Much of the international trading in Japan is overseen by huge trading companies. These companies are aware of these pressures, and will sustain a loss in one subsidiary company to assure free trade for its other products.

In the not too distant past, Japan had an advantage over the U.S. in labor costs. Japan preferred to purchase round logs when available, performing any processing work in their country. With rising wages, Japan no longer enjoys an advantage in labor costs, and is purchasing more lumber and finished products. Unfortunately, many lesser developed countries are in a better position to take advantage of this change than Alaska. Alaskan round log exports have, except for a slight drop in 1984, been increasing since 1980. This is mainly due to an increased supply, as demand was down during most of this period. Alaska Native and Village corporations have recently started logging operations, and do not have to perform the primary manufacturing which is required of timber from Forest Service land.

**Figure 2**
**Timber Industry Employment**
**Calender Year 1975-1987**



Source: AK Department of Labor

When Southeast Alaska employment was forecast for 1988 and 1989 (April 1988 *Alaska Economic Trends*) it was assumed the U.S. dollar would not revaluate in comparison to the yen enough to affect timber industry employment. This should hold true unless other factors such as those outlined above contribute to affect the relative price of Alaskan timber to the Japanese.

### The Timber Industry and Employment

Some have argued that Alaska's economy, through hard knocks and diversification, is maturing. Still, our economy relies heavily on its natural resources to provide the foundation upon which other sectors can build. This state has always had a resource based economy. Even before its purchase by the United States, Alaska was used as a reservoir of raw materials. Since timber is one of Alaska's most abundant natural resources, the harvesting and processing of Alaska's timber has provided an important source of employment for Alaska's economy for many years.

Employment in the timber industry fell sharply from a high in 1980 through 1985, losing one-third of its employment (Figure 2). The industry fell victim to dwindling demand in the early and mid 1980s, although some factors such as logging of Native lands slowed industry employment losses.

During the good market years of 1986 and 1987, the timber industry posted double digit percentage employment gains. This is strong growth under any circumstances, but especially so considering the poor performance of the economy as a whole. In 1986, seafood processing was the only other industry to register any employment gains. Outside of the manufacturing sector, no other major industry grouping posted employment gains during 1986 or 1987. Without the strength of the manufacturing industry, the state's most recent recession would have been even worse.

While hard to quantify, indirect employment from the timber industry is clearly evident. Certain sectors, such as the Southeast water and air transportation industries, do a substantial share of their business with the timber industry. Federal employment related to the timber industry in Alaska is also important to the economy. Of 18,000 federal employees, 1,000 work for the Forest Service although not all of these workers are hired because of timber activities. Most Southeast Alaskan communities with logging activities benefit from this federal employment. Many of the employees are residents of these communities, and some residents obtain part-time or seasonal employment with the Forest Service. The Forest Service, using an input-output simulation model, estimates that for every three jobs in the timber industry, an additional job is created in Alaska. Others have estimated the ratio higher for the economy as a whole, with three jobs created for each five jobs in an industry.

Like most segments of the economy, the amount of money injected into the economy by the timber industry is small when compared to the oil industry. Total yearly payroll for logging, sawmills and the pulp mills in 1987 was $108,385,968 or one-fifth that of oil and gas mining, representing 1.9% of the state's total nonagricultural payroll. The average employee's annual pay in 1987 was almost $35,500, nearly 30% higher than the all-industry average.

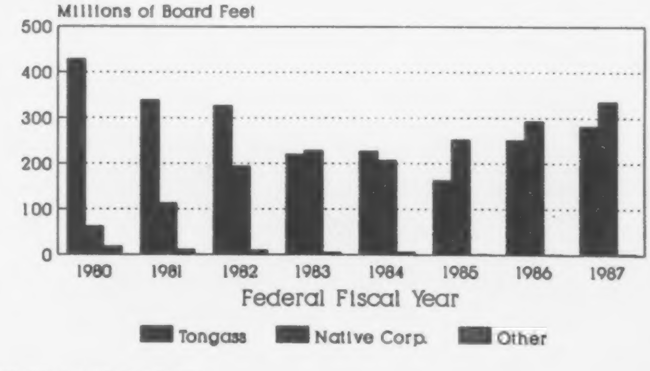
The industry is very important to the state's economic health. Timber products accounted for 20% of the dollar value of all Alaskan exports in 1986. During 1985, employment in the timber industry was 1% of total employment; in 1987 it was 1.4%, due to increasing timber employment and decreasing total employment. Much of this employment is in smaller communities, predominantly in Southeast. Many of these communities rely solely on the timber industry to fuel their economy. Terms of the timber sales in both the Tongass and Chugach forests give the state 25% of all monies received by the federal government for timber sales (Table 1). This money is mainly used to finance schools and build public roads in areas near the forests.

### The Tongass Timber Reform

The single most important factor for the long term future of Alaska's timber industry is the outcome of the Tongass timber reform debate. Under provisions of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA),

**Timber products accounted for 20% of the dollar value of all Alaskan exports in 1986**

**Figure 3**
**Timber Harvest in Southeast Alaska by Source of Timber-Federal Fiscal Years 1980-1987**



Source: U.S. Forest Service

the United States Forest Service stated its intention to fund certain timber harvest activities, while at the same time removing large areas of land from future timber harvests.

To help insure employment in the Tongass area, ANILCA required the Forest Service to make available 4.5 billion board feet of timber per decade for harvest, or 450 million board feet (MMBF) per year. The Forest Service realized that to maintain a viable timber industry certain steps would have to be taken. Because the available timber was of lower quality and less accessible, the Tongass Timber Supply fund was created to build roads, implement measures to improve growth rates and quality, and promote advanced logging techniques.

**To help insure employment in the Tongass area, ANILCA required the Forest Service to make available 4.5 billion board feet of timber per decade for harvest, or 450 million board feet per year**

The federal government had taken earlier measures to promote the timber industry in Southeast Alaska. In the 1950s, long term timber contracts were signed with several companies. Two of these contracts are still in force. Ketchikan Pulp Company and Alaska Lumber and Pulp Company were guaranteed access to 13.3 billion board feet of timber over the course of their 50 year contracts.

Smaller sales of Tongass timber continue. During the 1987 federal fiscal year, the U.S. Forest Service offered about 400 MMBF of timber for sale. Approximately one-quarter of this amount was offered to small purchasers (Table 2). Of the total offering', 150 MMBF was purchased, which included 52 MMBF from lands previously offered for sale. the cost of infrastructure development necessary to prepare timber tracts for sale are significant. With such a small percentage of available timber actually being purchased, the U.S. Forest Service is spending more than it collects from sales.

This is not unexpected, considering the poor market of the early 1980's. The neighboring British Columbian government, with a long history of profitable forest management, also lost money during this period. The losses were increased with the Forest Service's interpretation that it must prepare and supply 450 MMBF each year, and with the required infrastructure development necessary after ANILCA.

Between three and seven years are needed to prepare a site for harvest according to the Forest Service. Recently, the U.S. Office of Management and Budget and the Forest Service have taken the position that only the amount demanded need be prepared for harvest. This seems to be a reasonable approach, if a buffer is maintained to satisfy unforeseen demands for timber.

Provisions were placed on the sale of Tongass timber to increase employment in Southeast Alaska. Before the timber could be exported primary processing would have to occur. At a minimum a log would have to be surface cut on two sides, creating a cant. The state also required primary processing on state forest land's timber until a court decision in 1982 abolished this provision. The intention of these provisions was to promote more extensive processing, but this reduced the demand for the product. Producers are, at present, performing the minimum amount of processing necessary to meet the Tongass requirements.

### Alaska Native Regional and Village Corporations

The Native regional and village corporations are big players in Alaska's timber industry. Within Southeast Alaska alone, over 600,000 acres are Native owned. Other areas of the state showing strong timber potential are the Prince William Sound area, the Kenai Peninsula and the Mat-Su boroughs, all with large Native land holdings. Each Alaska Native village corporation has approximately 23,000 acres of land. Sealaska, the Southeast regional corporation, has over 300,000 acres of land and is negotiating the conveyance of nearly 30,000 remaining acres. To date, about 20,000 acres of Sealaska timberland have been harvested with direct employment of nearly 400 persons.

In comparison to the sustainable yield approach taken by the U.S. Forest Service, Native corporations have been very aggressive in their timber harvest plans. This approach has drawn criticism from different sectors, who correctly point out that at present harvest rates marketable timber supplies will be depleted by the early 1990s.

Before criticizing the current harvest plan, one should consider the position in which the Native corporations found themselves. As part of the Alaska Native Claims Settlement Act (ANCSA), the corporations were conveyed certain properties. In Southeast, much of these properties were tracts with marketable timber, seen as capital. An agreement could just as easily have been reached with cash, which was needed to diversify the corporations and make them profitable. Accepting timberland allowed the corporations to sell the timber for cash flow and retain the land.

Many persons would like to see the corporations use the sustained yield approach to harvests. Unfortunately, this is unfeasible for several reasons. The small size of the land holdings of an individual corporation, 23,000 acres for the village corporations, precludes this approach. Using information obtained from Sealaska Corporation, between 55% and 60% of the land conveyed to Sealaska under ANCSA contains marketable timber. If this same proportion holds true for village corporations, the annual allowable sustained yield harvest would be less than 160 acres. After investing the fixed costs for construction of a base camp, log transfer facilities, roads and other infrastructure, harvesting such a small tract would lose the corporation money.

Secondly, much of the lands held by the corporations is fragmented, leaving tracts too small to profitably harvest. If a large operation is active close to a small tract, with infrastructure costs already absorbed by the large operation, then the tract might be harvested. Agreements might also be worked out where timber surrounding the small tract is traded for other land holdings of the village corporation.

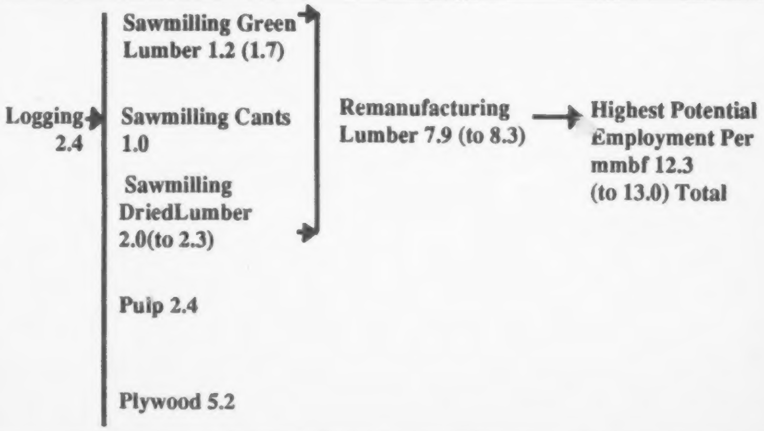
Because of the high start-up costs involved in creating a timber company and the uncertainty of the world market, many corporations contract out their timber harvests. One which took the risk to start its own company was the Klukwan village corporation. In 1981 the corporation created an operating subsidiary for logging and road construction, Klukwan Forest Products.

In the beginning the company performed contract logging, but has recently begun purchasing timber from other corporations. Some of these purchases include 40 to 50 MMBF from the Kootznoowoo corporation in 1985 and from Cape Fox in 1986. In the summer of this year, the company purchased 200 MMBF on the Kenai peninsula from the Nanilchik corporation. The company has not only been turning a profit, but has created a large number of jobs and injected money into local economies. Including employment in stevedoring, Klukwan has over 400 employees with an annual payroll in excess of $10 million.

Bob Loiselle, president and CEO of Klukwan Forest Products, points out

**Although total employment fell during the early 1980s, the fall would have been worse were it not for the increased logging of Native lands**

**Figure 4**
**Employment by the Board Foot**
**Employment Pattern Per Million Board Feet (mmbf)**


Logging 2.4
Sawmilling Green Lumber 1.2 (1.7)
Sawmilling Cants 1.0
Sawmilling DriedLumber 2.0(to 2.3)
Pulp 2.4
Plywood 5.2
Remanufacturing Lumber 7.9 (to 8.3)
Highest Potential Employment Per mmbf 12.3 (to 13.0) Total

**Alaska is a small supplier on the Pacific Rim market, supplying only five percent of the total timber consumed**

that harvesting of Native timber has had a positive and stabilizing effect on Southeast Alaska's economy. During the early 1980s, demand for timber was falling sharply. Employment was declining as companies were forced to reduce or curtail operations. At the same time, the Native lands became open to harvest, employing many who might have otherwise been laid off. Although total employment fell during the early 1980s, the fall would have been worse were it not for the increased logging of Native lands (Figure 3).

The need for cash was a strong incentive to harvest Native lands. The corporations could have made higher profits if they had been able to wait for better market conditions, but this was impossible. In the long run, the decision to harvest worked out well for the corporations. When conveyed to the corporations, the timber was appraised. For accounting purposes, this appraisal became the value of the resource. Since the corporations are able to sell net operating losses (NOLs) to other companies for tax purposes, large "paper" losses were realized. The sales of NOLs helped the corporations' cash flow and supplied the capital necessary to diversify operations.

Many contend that round log exports from Native lands directly compete with Tongass cants, which have the minimum primary processing required of timber from the National Forest. The two products do compete, but the degree is difficult to measure. With decreased demand during the early 1980s, sales of Tongass timber fell sharply. At the same time, exports of Native round logs were rising. This alone does not prove that round logs supplanted cants in the market.

In a depressed international market, sales of Tongass cants would be expected to decline. Those firms working in the Tongass are profit driven. They have to acquire standing timber and be able to sell it for a profit. If the demand for this timber falls, so will the price. Companies are forced to reduce their operations.

The Native corporations, as mentioned above, found themselves in a different situation. At the start of a declining market, they were given access to millions of board feet of timber as part of the ANCSA settlement. The Native corporations had already acquired this timber through the settlement. As long as harvest costs were less than the market prices, harvesting brought in cash needed for diversification. Much Native land was harvested as quickly as possible to generate this cash.

Alaska is a small supplier on the Pacific Rim market, supplying only five percent of the total timber consumed. If all timber competes evenly, if there is no uniqueness among timber from different countries, then the increased supply of Native round logs had very little impact on the demand for cants. Some argue that the harvest of logs from Native lands helped the industry in two ways. First, these sales maintained Alaskan timber's place in the world market. Second, many smaller companies which might have closed during the weak market period were able to survive.

Under a different set of assumptions, the competition between cants and round logs is much greater. If Alaskan timber is unique, with very little competition from timber from other countries, then cants and round logs directly compete. Cants are seen as an inferior product by many buyers, who prefer round logs. With the lower demand of the early 1980s and the higher supply of round logs, round logs had a large competitive advantage.

The degree of displacement of cants by round logs is somewhere between these two extremes.

### Changes in the Industry

Several changes have taken place within the industry over the last several years. One of the most important is the entry of larger companies. Several smaller operators in Alaska's timber industry were forced to close when demand declined. Larger companies are better able to maintain operations during these periods, and should provide additional stability to the industry. These larger companies are also able to invest in larger projects with the potential for long run gains. Some of this increased investment, however, will be for new technologies which could reduce the number of jobs per unit of output.

Some of these employment declines could be countered. Devaluation of the U.S. dollar also makes value added processing more feasible. Most producers have found a stronger market for and higher profit margins with minimally processed timber. If additional processing occurs in state, the number of jobs per unit of timber increases. Either more jobs could be created in the timber industry, resource depletion will occur at a slower rate, or some combination of the two would result. Figure 4, prepared by the U.S. Forest Service, shows the amount of additional employment which could be realized through value added processing. Presently most operations end with logging and sawmilling cants.

Alaska holds an increasing share of premium quality timber. Few marketable stands of fine grained timber remain in the lower 48. Some believe that products of lesser quality will become more sought after, such as fine grained hemlock. The opportunity arises for more value added processing, and more jobs, as supplies of these products diminish in other areas. Demand for high quality timber is quite high, and consumers would accept a more finished product than has been offered in the past. The Canadian government is moving in this direction, attempting to regain jobs lost to new technologies.

Much of this premium quality timber remains in the Tongass. Most agree that marketable timber from Native lands will be harvested by the middle 1990s. The Forest Service predicts that exports of logs will decrease by 40% within five years. At that time, without continued support for the Tongass timber industry, large employment losses will occur. The amount of support might not have to be as great as in the past. The product in the Tongass is valuable, and is becoming more so with time. Over time and with adequate management, investment in the Tongass will pay off.

Other sources of Alaskan timber products may become feasible in the near future. Although little progress has been made to date, interest is still high for operating a plywood manufacturing facility in the Mat-Su region. Two companies expressed a desire to locate in the area, but have not yet reach agreement with the state on long term timber sales.

An additional timber resource has recently been used for commercial purposes near Fairbanks. A processing plant was opened last year with a rather unique product line. One area resident referred to the endeavor as the "toothpicks, match sticks and chopsticks" plant. The company uses tamarack, a wood known for its tendency to split evenly. A market was found in China and other Pacific Rim nations, where millions of disposable chopsticks are used daily.

New markets for Alaskan timber may be opening soon. The People's Republic of China has had a volatile trade relationship with the U.S. over the last several years. China's demand for timber exceeds that of Japan's, and should increase if the government continues its program of westernization. South Korea is another potential importer of Alaskan timber. Supplying timber to South Korea is more dependent on the market than it is for either Japan or China. South Korea's small size and subordinate posture to the U.S. in terms of international trade relieve it of most pressures to import American products.

## Conclusion

The timber industry in Alaska, though important to the economy, is a very small player in the world market. Because of this, the industry has varying amounts of control over its future. Certain factors such as currency fluctuations and international trade agreements are outside the scope of the industry's influence. Issues such as the Tongass timber reform debate are important to many groups, many with desires vastly different from those of the industry.

One of the few areas where the industry has some control of its future is in supplying premium quality wood on the world market. Although Alaska is not the only area possessing this highly demanded commodity, the supplies are dwindling. The industry might find that additional value added processing could increase profits, increase employment, and prolong the industry's viability in an uncertain market.

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1/ The Jones Act requires that cargo shipped between American ports be carried on vessels built and registered in the United States. Most agree that this increases transportation costs. For more information, see the April 1983 issue of *Alaska Economic Trends.*

# A $20 Billion Economy-Alaska's Gross State Product

By Neal Fried

**Alaska's per capita GSP of $36,755 is the highest of all 50 states**

Every quarter economic analysts across the country pour over the nation's latest gross national product (GNP) figures. GNP is one of the most widely scrutinized economic indicators because it is one of the nation's broadest measures of economic health. Does an equivalent economic indicator exist for Alaska?

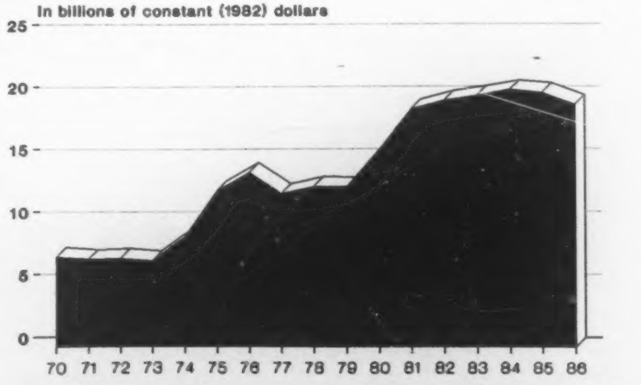
Gross state product (GSP) for Alaska is a measurement similar to the gross national product, though it is limited to the production which takes place within the state's borders. Gross state product figures provide a handy outline of the overall activity in the state's economy. It's a measure of the market value of all goods and services produced for final consumption for a given year. GSP doesn't command any space in the local media because it is not reported quarterly, or for that matter annually. Calculations of Alaska's GSP have been produced intermittently by the University of Alaska. More recently, the same people who calculate the nation's GNP-the U.S. Department of Commerce, Bureau of Economic Analysis, produced GSP figures for all of the states.

This gives us a rare opportunity to measure how productive Alaska is in comparison to other states. The difference between Alaska's product mix and the rest of the nation's can be explored. Because a historical series was also calculated, it is possible to track where Alaska's GSP has changed. The most recent data was produced for 1986 and historical data goes as far back as 1963.

## Almost a $20 Billion Dollar Economy

In 1986 Alaska produced $19.6 billion in goods and services. Alaska's GSP grew at a rate of 7.3% per year in the 1980s (1980-1986). However, much of this growth came as a result of price increases and not additional production. If Alaska's GSP is adjusted for price increases the rate falls to 3.5% per year-still a respectable growth rate compared to the national annual growth rate of 2.8%. Looking back to the decade of the 1970s the rate was even more impressive. In the 1970s Alaska's GSP forged ahead at an annual rate of 7.0%, double the rate of the 1980s. Oil development was largely responsible for these tremendous gains in the 1970s.

Figure 1
Alaska GSP
1970-1986



Source: U.S. Dept. of Commerce, BEA

## GSP by Industry

Not surprisingly, the single largest slice of Alaska's GSP pie comes from oil. The oil and gas industry was responsible for 43% of the state's total product in 1986. Though direct employment in the oil and gas industry in Alaska represents less than four percent of the total employment, the GSP figures better illustrate how far reaching oil's influence is on the state's economy. Oil's slice of the pie has not always been so large. In 1976 the oil industry's output represented only 15% of the state's GSP. But because of its above average growth its share grew dramatically.

Alaska's public sector, which employs almost one-third of the state's work force, produces only 13% of the GSP. Much of the means to operate state and local government comes from the state's share of Alaska's petroleum wealth. While state and local government's pace of growth has been about average, the federal side has been slow. In the 1980s the federal civilian annual growth rate actually lost ground, and the federal military side grew by less than one percent per year.

The secondary sectors (retail and wholesale trade, finance-insurance and real estate and services) experienced a decline in their share of the economy in the 1980s, largely because of substantial losses taken in 1986. Most of these industries did grow faster than the average during the 1980-1985 period. Retail trade grew particularly rapidly during this period of Alaska's economic history. Retail trade's employment followed suit, adding an additional 13,300 jobs during the 1980-1985 period. The strong growth of GSP in the secondary sector should resume when the economy begins to grow again.

**The secondary sectors experienced a decline in their share of the economy in the 1980s, largely because of substantial losses taken in 1986**

### Table 1
### Alaska Gross State Product by Industry, 1970-1986
### In Millions of Constant Dollars (1982 = 100)

| | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 |
|---|---|---|---|---|---|---|---|---|
| Total | $7,132 | $6,992 | $7,044 | $6,888 | $8,738 | $12,457 | $13,926 | $12,221 |
| Mining | 2,292 | 2,045 | 1,884 | 1,482 | 1,854 | 2,192 | 2,086 | 2,152 |
| Metal | 17 | 5 | 4 | 8 | 8 | 5 | 8 | 4 |
| Coal | 7 | 9 | 9 | 8 | 6 | 7 | 8 | 10 |
| Oil & Gas | 2,265 | 2,028 | 1,868 | 1,464 | 1,837 | 2,176 | 2,065 | 2,132 |
| Other Mining | 3 | 2 | 2 | 2 | 3 | 4 | 5 | 5 |
| Construction | 771 | 773 | 779 | 678 | 1,373 | 3,210 | 4,221 | 2,363 |
| Manufacturing | 258 | 259 | 257 | 315 | 354 | 376 | 466 | 524 |
| Lumber and Wood Products | 77 | 69 | 66 | 76 | 91 | 85 | 86 | 88 |
| Food and Kindred Products | 78 | 76 | 75 | 101 | 98 | 108 | 158 | 177 |
| Paper and Allied Products | 48 | 50 | 55 | 69 | 86 | 76 | 101 | 114 |
| Chemical and Allied Prod. | 6 | 7 | 8 | 10 | 11 | 12 | 18 | 27 |
| Petroleum and Coal Prod. | 12 | 18 | 11 | 13 | 13 | 17 | 24 | 37 |
| Other Manufacturing | 37 | 39 | 42 | 46 | 55 | 78 | 79 | 81 |
| Trans. Comm. & Utilities | 431 | 447 | 473 | 509 | 708 | 1,082 | 1,112 | 1,072 |
| Trucking & Warehousing | 67 | 59 | 63 | 64 | 118 | 304 | 270 | 201 |
| Water Transportation | 28 | 28 | 33 | 38 | 50 | 72 | 76 | 102 |
| Air Transportation | 143 | 128 | 138 | 150 | 210 | 234 | 246 | 250 |
| Pipelines | 5 | 1 | 3 | 24 | 56 | 47 | 27 | 208 |
| Communication | 86 | 114 | 119 | 121 | 144 | 209 | 237 | 266 |
| Utilities | 62 | 72 | 77 | 89 | 107 | 128 | 138 | 139 |
| Other Trans. Comm. & Util. | 40 | 45 | 40 | 23 | 23 | 88 | 118 | (94) |
| Trade | 521 | 547 | 584 | 607 | 694 | 963 | 1,047 | 1,075 |
| Wholesale | 167 | 168 | 178 | 174 | 210 | 322 | 353 | 339 |
| Retail | 354 | 379 | 406 | 433 | 484 | 641 | 694 | 736 |
| Finance-Ins. & R.E. | 517 | 534 | 653 | 763 | 993 | 1,289 | 1,329 | 1,363 |
| Services | 443 | 462 | 495 | 528 | 665 | 1,188 | 1,393 | 1,330 |
| Hotels | 51 | 51 | 54 | 55 | 71 | 96 | 109 | 109 |
| Business Services | 87 | 82 | 80 | 78 | 129 | 474 | 590 | 473 |
| Health Services | 78 | 91 | 105 | 116 | 131 | 154 | 190 | 215 |
| Social Ser. & Member. Org. | 54 | 56 | 55 | 49 | 51 | 107 | 123 | 128 |
| Other Services | 173 | 182 | 201 | 230 | 283 | 357 | 381 | 405 |
| Government | 1,797 | 1,846 | 1,838 | 1,899 | 1,991 | 2,066 | 2,115 | 2,194 |
| Federal Civilian | 578 | 544 | 495 | 513 | 529 | 559 | 546 | 573 |
| Federal Military | 705 | 685 | 648 | 648 | 650 | 627 | 597 | 598 |
| State & Local | 513 | 617 | 696 | 738 | 812 | 880 | 972 | 1,024 |
| Agricul., Forestry & Fisheries | 103 | 79 | 82 | 107 | 105 | 89 | 156 | 148 |

Source: U.S. Department of Commerce, Bureau of Economic Analysis
For Summary Data, See *Survey of Current Business*. May 1988. U.S.Department of Commerce, Bureau of Economic Analysis

Alaska's GSP fell almost five percent in 1986-making Alaska only one of five states in the nation to lose ground in 1986. All five of these losers were energy-producing states. Most of the nation made strong gains. The nation's GSP (an aggregate of the states and Washington DC's GSP) grew a robust 3.1% in 1986. GSP data will probably record losses in Alaska in 1987, but by 1988 some growth may be evident.

Figure 2 illustrates the pronounced difference between Alaska's product mix and the nation's. The mining industry dominates Alaska's GSP, but accounts for less than one percent of the nation's. On the other hand the manufacturing industry is the nation's dominant GSP generator, but in Alaska it accounts for only four percent. These differences will continue to prevail because 1) Alaska's mining industry will play an ever greater role in Alaska's economy as additional oil fields are developed and new hard rock mining sites are brought into production; 2) manufacturing's role could grow in Alaska's economy if a much larger share of the state's timber and fishing resources were processed in the state, but this does not appear likely in the near future. Even if this were to happen it still would not approach the nation's share of manufacturing. Other differences exist between Alaska's

## Table 1 (continued)
## Alaska Gross State Product by Industry, 1970-1986
## In Millions of Constant Dollars (1982 = 100)

| 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | Annual Average Rate of Change 1980-1986 |
|---|---|---|---|---|---|---|---|---|---|
| $12,789 | $12,774 | $15,764 | $18,953 | $19,648 | $20,053 | $20,509 | $20,281 | $19,325 | 3.5% |
| 3,405 | 3,766 | 6,461 | 9,277 | 8,720 | 8,063 | 8,415 | 8,532 | 8,439 | 4.6 |
| 5 | 10 | 15 | 20 | 6 | 21 | 15 | 18 | 27 | 10.3 |
| 11 | 11 | 11 | 12 | 13 | 16 | 17 | 21 | 21 | 11.4 |
| 3,384 | 3,740 | 6,428 | 9,236 | 8,696 | 8,021 | 8,376 | 8,483 | 8,385 | 4.5 |
| 5 | 5 | 7 | 10 | 5 | 6 | 7 | 10 | 5 | -5.5 |
| 1,409 | 1,162 | 1,388 | 1,712 | 2,367 | 2,895 | 2,719 | 2,226 | 1,685 | 3.3 |
| 561 | 604 | 634 | 579 | 533 | 615 | 659 | 707 | 763 | 3.1 |
| 73 | 95 | 132 | 118 | 113 | 105 | 95 | 92 | 106 | -3.6 |
| 191 | 209 | 200 | 184 | 153 | 142 | 131 | 140 | 140 | -5.8 |
| 99 | 89 | 79 | 64 | 52 | 53 | 43 | 37 | 45 | -9.0 |
| 35 | 36 | 34 | 38 | 41 | 46 | 47 | 43 | 40 | 2.7 |
| 64 | 53 | 74 | 83 | 72 | 158 | 219 | 268 | 326 | 28.0 |
| 99 | 122 | 115 | 92 | 102 | 111 | 124 | 127 | 106 | -1.3 |
| 1,224 | 1,220 | 1,212 | 1,283 | 1,317 | 1,329 | 1,464 | 1,395 | 1,319 | 1.4 |
| 162 | 131 | 133 | 152 | 152 | 140 | 138 | 124 | 107 | -3.6 |
| 74 | 69 | 75 | 67 | 70 | 78 | 78 | 81 | 70 | -1.1 |
| 270 | 298 | 272 | 294 | 271 | 269 | 306 | 265 | 251 | -1.3 |
| 203 | 218 | 252 | 306 | 277 | 297 | 288 | 293 | - | - |
| 297 | 314 | 329 | 328 | 328 | 360 | 359 | 334 | 312 | -0.9 |
| 141 | 136 | 119 | 124 | 127 | 143 | 217 | 230 | 217 | 10.5 |
| 77 | 54 | 32 | 12 | 92 | 42 | 78 | 68 | - | - |
| 1,053 | 1,009 | 984 | 1,111 | 1,268 | 1,438 | 1,545 | 1,557 | 1,453 | 6.7 |
| 320 | 296 | 295 | 347 | 409 | 449 | 487 | 501 | 469 | 8.0 |
| 733 | 713 | 689 | 764 | 859 | 989 | 1,058 | 1,056 | 984 | 6.1 |
| 1,513 | 1,367 | 1,346 | 1,245 | 1,470 | 1,493 | 1,499 | 1,505 | 1,444 | 1.2 |
| 1,118 | 1,050 | 1,076 | 1,206 | 1,332 | 1,434 | 1,477 | 1,437 | 1,321 | 3.5 |
| 100 | 98 | 92 | 99 | 102 | 109 | 106 | 104 | 97 | 0.9 |
| 253 | 201 | 210 | 253 | 299 | 323 | 316 | 307 | 269 | 4.2 |
| 221 | 218 | 227 | 246 | 264 | 277 | 299 | 294 | 290 | 4.2 |
| 137 | 141 | 144 | 147 | 150 | 153 | 152 | 154 | 156 | 1.3 |
| 407 | 392 | 403 | 461 | 517 | 572 | 604 | 578 | 509 | 4.0 |
| 2,252 | 2,274 | 2,308 | 2,367 | 2,483 | 2,581 | 2,603 | 2,621 | 2,596 | 2.0 |
| 570 | 567 | 542 | 525 | 515 | 538 | 555 | 528 | 541 | -0.0 |
| 590 | 588 | 578 | 566 | 593 | 599 | 584 | 583 | 601 | 0.7 |
| 1,092 | 1,119 | 1,189 | 1,276 | 1,374 | 1,444 | 1,465 | 1,510 | 1,454 | 3.4 |
| 254 | 323 | 356 | 172 | 157 | 205 | 127 | 301 | 304 | -2.6 |

product mix and the nation's, but they are not quite as pronounced.

### A Small But Productive State

Though Alaska has the second smallest population in the nation, our GSP ranks 38th. Some states such as Hawaii and Maine have populations twice as large as Alaska's but smaller gross state products. If we look at per capita GSP (simply divide the GSP by the total population) Alaska's production is quite impressive. Alaska's per capita GSP of $36,755 is the highest of all 50 states. At least on a per capita basis, we are the most productive state in the nation. Our per capita GSP is more than double the national average and is 60% above the next runner- up, Wyoming. What this means is not altogether clear, but there is a strong correlation between income and state product. Generally speaking, those states with high per capita gross state product also enjoy higher per capita incomes. GSP-wise, Alaska is performing quite well. We can thank Prudhoe Bay for much of this distinction.

### GSP Does Not Tell The Whole Story

Like any other single economic indicator, GSP figures can't tell the whole story of Alaska's nor for that matter any economy. GSP does not account for subsistence, though subsistence is an economic output. It does not account for volunteer labor, and possibly its largest omission is that it does not account for labor that takes place in the household. Though all of these activities add to the productivity of a society, they are not accounted for because dollar values can't readily be assigned to these activities.

**Though Alaska has the second smallest population in the nation, our GSP ranks 38th**

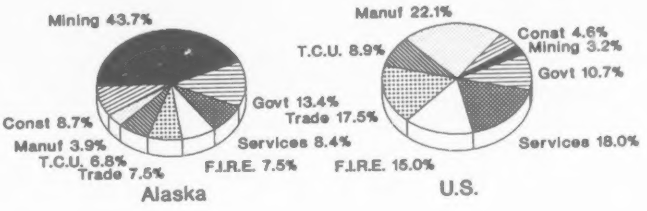
Table 2
Gross and Per Capita State Product by State
in 1986 (current dollars)

|  | Gross State Product (millions) | Per Capita Gross State Product |
|---|---:|---:|
| **ALASKA** | $19,575 | $36,795 |
| Wyoming | 11,673 | 23,024 |
| Connecticut | 70,639 | 22,123 |
| New York | 362,736 | 20,384 |
| New Jersey | 154,765 | 20,297 |
| Nevada | 19,426 | 20,089 |
| Massachusetts | 115,526 | 19,802 |
| California | 533,816 | 19,770 |
| Delaware | 11,706 | 18,493 |
| Texas | 303,510 | 18,186 |
| Illinois | 209,666 | 18,151 |
| Hawaii | 19,320 | 18,141 |
| Colorado | 59,177 | 18,119 |
| New Hampshire | 18,518 | 18,031 |
| Virginia | 104,155 | 17,973 |
| Minnesota | 75,626 | 17,951 |
| Washington | 77,683 | 17,406 |
| U.S.A | 4,191,705 | 17,386 |
| Kansas | 42,472 | 17,272 |
| Maryland | 76,504 | 17,150 |
| Georgia | 102,922 | 16,872 |
| Michigan | 153,240 | 16,768 |
| Nebraska | 26,521 | 16,596 |
| Louisiana | 74,426 | 16,543 |
| Missouri | 83,534 | 16,496 |
| Ohio | 176,102 | 16,385 |
| Arizona | 53,253 | 16,241 |
| Wisconsin | 76,922 | 16,082 |
| Vermont | 8,636 | 15,963 |
| New Mexico | 23,603 | 15,959 |
| North Carolina | 100,961 | 15,947 |
| North Dakota | 10,733 | 15,807 |
| Rhode Island | 15,205 | 15,595 |
| Pennsylvania | 183,559 | 15,433 |
| Indiana | 84,922 | 15,432 |
| Iowa | 43,836 | 15,381 |
| Oregon | 41,278 | 15,277 |
| Florida | 177,729 | 15,198 |
| Tennessee | 72,328 | 15,068 |
| Oklahoma | 49,814 | 15,068 |
| Montana | 12,163 | 14,887 |
| Maine | 17,326 | 14,783 |
| Utah | 24,008 | 14,428 |
| Kentucky | 53,135 | 14,261 |
| South Dakota | 9,802 | 13,845 |
| Alabama | 55,007 | 13,582 |
| Arkansas | 31,638 | 13,344 |
| South Carolina | 44,727 | 13,229 |
| Idaho | 13,170 | 13,144 |
| West Virginia | 24,096 | 12,570 |
| Mississippi | 31,830 | 12,130 |

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

In spite of these shortcomings, GSP figures provide a broad sweep of Alaska's economy. They tell us the value of what Alaska produces. Gross state product gives a better feel for the petroleum industry's role and other industries in Alaska's economy. Combined with other economic indicators, these gross state product figures help to complete the process of painting a comprehensive picture of the state's economy.

**Figure 2**
**Personal Income by Component**
**U.S. and Alaska**



Source: U.S. Dept. of Commerce, BEA

# Alaska's Employment Scene-Have We Hit Bottom Yet?

By Neal Fried

**Statewide employment is less than one percent or 1,325 jobs below 1987, a far cry from the 10,400 jobs lost (4.7%) in the state last year**

Have we hit the bottom of the recession yet? This is a question many people are asking today. Does the question have merit? It certainly does. The mere fact that it is being asked attests to a renewed optimism in Alaska.

Statewide employment numbers for 1988 remain below 1987 levels, but the difference is small. Statewide employment is less than one percent or 1,325 jobs below 1987, a far cry from the 10,400 jobs lost (4.7%) in the state last year. Figure 1 illustrates how job losses have narrowed considerably during the course of 1988.

In terms of jobs, the Alaskan labor market has made greater strides towards recovery than the economy has. Reports of labor shortages are increasing, a phenomenon unheard of during the last two years. August's unemployment rate of 7.6% is a partial testimony to this. Fewer lower 48 job seekers, an exodus of the unemployed, and an end to the hemorrhaging of the economy have allowed the job market to recover.

### A Mixed Industry Picture

A mixed industry picture is emerging. Some industries are moving full speed ahead, others are recovering slowly, some are lingering in balance, and a few remain in serious condition (Figure 2). The expression "a swiss cheese economy" is a good description of Alaska's economy today-some industries are prosperous, others are healthy and yet others are still falling through the holes.

## The Strong Side of the Economy

The industries which can be counted among the prosperous are fishing, timber and mining-all basic resource industries. All have had employment growth rates of over five percent for the first eight months of 1988, and timber and fish processing employment growth has exceeded ten percent. Strong worldwide demand and a weak dollar have caused what some are now calling the beginning of a scramble for many of Alaska's natural resources.

Though the salmon catch was somewhat disappointing, prices hit new records. The value of the salmon catch this year is estimated to be worth $581 million, more than $100 million above last year's value, despite a slightly smaller catch. The strong yen and the Japanese appetite for salmon caused prices to set new records. Bottomfishing helped to keep the fish processing employment numbers high. Some bad news on the bottomfishing front is that over-fishing appears to be taking its toll in Kodiak's waters. More research will have to be done to confirm this development.

The strong yen and new regulations in British Columbia which have curtailed some of their logging activities is boosting the demand for Alaskan logs. Alaska timber producers are operating at nearly full capacity. A new mill is being built in Ketchikan, but a more interesting development is the number of new timber ventures that are emerging outside of southeast Alaska, which has dominated the industry in Alaska up to the present. For the first time in a decade, timber is being harvested in southcentral and interior forests for export to Asia. The scale is small, and the exports are rough timber, but it is a new development many people thought would never occur. In addition, Chugach Alaska Corporation is building a high-tech timber mill in Seward. Unlike most of the other new ventures, it will process finished wood products for export and local markets. The mill will initially employ 50, but they hope to double their work force by 1990. A number of other plans are also being made for timber development in southcentral Alaska.

Hard rock mining activity has reawakened. Non-oil related mining employment in August was 20% above year ago levels. High mineral prices have also led to a boom in exploration activity in the state. The Alaska Department of Commerce estimates that exploration activity has doubled or tripled this year. The employment numbers are small (1,076 in August), but they could be sowing seeds for additional activity in the future. The mining employment figures will receive a big boost when the Greens Creek and Red Dog mines begin production in 1989 and 1990 respectively.

On the other side of the mining equation, activity in the oil industry does not match its hard rock counterpart, but still it could be counted among the recovering industries. Oil industry employment is up almost five percent, in spite of lower oil prices.

**Non-oil related mining employment in August was 20% above year ago levels**

### Table 1
### Nonagricultural Wage and Salary Employment
### By Place of Work
### Alaska

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/<br>8/88 | r/<br>7/88 | 8/87 | 7/88 | 8/87 |
| Nonag. Wage & Salary | 223,100 | 223,600 | 224,400 | -500 | -1,300 |
| Mining | 9,300 | 9,300 | 8,800 | 0 | 500 |
| Construction | 11,200 | 11,000 | 13,300 | 200 | -2,100 |
| Manufacturing | 20,900 | 22,900 | 20,500 | -2,000 | 400 |
| Seafood Processing | 13,900 | 16,000 | 13,800 | -2,100 | 100 |
| Lumber & Paper Prod. | 3,700 | 3,600 | 3,300 | 100 | 400 |
| All Other Manufacturing | 3,300 | 3,300 | 3,400 | 0 | -100 |
| Transportation | 18,800 | 19,000 | 19,300 | -200 | -500 |
| Trucking & Warehousing | 2,600 | 2,600 | 2,600 | 0 | 0 |
| Water Transportation | 1,100 | 1,200 | 1,200 | -100 | -100 |
| Air Transportation | 5,900 | 5,900 | 5,800 | 0 | 100 |
| All Other Transportation | 9,200 | 9,300 | 9,700 | -100 | -500 |
| Trade | 44,100 | 43,700 | 44,600 | 400 | -500 |
| Wholesale | 7,500 | 7,600 | 7,600 | -100 | -100 |
| Retail | 36,600 | 36,100 | 37,000 | 500 | -400 |
| Gen.Mer.& Apparel | 5,400 | 5,200 | 5,300 | 200 | 100 |
| Food Stores | 6,200 | 6,200 | 6,100 | 0 | 100 |
| Eating & Drinking Pl. | 13,700 | 13,400 | 14,300 | 300 | -600 |
| All Other Retail | 11,300 | 11,300 | 11,300 | 0 | 0 |
| Finance-Ins. & R.E. | 10,900 | 10,900 | 11,100 | 0 | -200 |
| Services | 44,100 | 44,000 | 43,700 | 100 | 400 |
| Government | 63,800 | 62,800 | 63,100 | 1,000 | 700 |
| Federal | 18,300 | 18,300 | 18,600 | 0 | -300 |
| State | 19,200 | 18,400 | 18,200 | 800 | 1,000 |
| Local | 26,300 | 26,100 | 26,300 | 200 | 0 |

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1987.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

## Table 2
# Nonagricultural Wage and Salary Employment By Place of Work

### Anchorage

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ | r/ | | | |
| | 8/88 | 7/88 | 8/87 | 7/88 | 8/87 |
| Nonag. Wage & Salary | 102,150 | 102,100 | 103,550 | 50 | -1,400 |
| Mining | 3,550 | 3,600 | 3,200 | -50 | 350 |
| Construction | 5,600 | 5,500 | 6,950 | 100 | -1,350 |
| Manufacturing | 2,950 | 3,000 | 2,800 | -50 | 150 |
| Transportation | 9,650 | 9,700 | 9,950 | -50 | -300 |
| Trucking & Warehousing | 1,600 | 1,550 | 1,700 | 50 | -100 |
| Water Transportation | 300 | 350 | 300 | -50 | 0 |
| Air Transportation | 3,300 | 3,350 | 3,400 | -50 | -100 |
| All Other Transportation | 4,450 | 4,450 | 4,550 | 0 | -100 |
| Trade | 24,100 | 23,900 | 24,050 | 200 | 50 |
| Wholesale | 5,650 | 5,700 | 5,450 | -50 | 200 |
| Retail | 18,450 | 18,200 | 18,600 | 250 | -150 |
| Gen.Merch. & Apparel | 2,600 | 2,550 | 2,500 | 50 | 100 |
| Food Stores | 2,900 | 2,850 | 2,800 | 50 | 100 |
| Eating & Drinking Pl. | 7,150 | 7,000 | 7,550 | 150 | -400 |
| All Other Retail | 5,800 | 5,800 | 5,750 | 0 | 50 |
| Finance-Ins. & R.E. | 7,150 | 7,100 | 7,350 | 50 | -200 |
| Services | 24,250 | 24,400 | 24,000 | -150 | 250 |
| Government | 24,900 | 24,900 | 25,250 | 0 | -350 |
| Federal | 10,450 | 10,550 | 10,700 | -100 | -250 |
| State | 6,450 | 6,200 | 6,350 | 250 | 100 |
| Local | 8,000 | 8,150 | 8,200 | -150 | -200 |

### Anchorage-MatSu

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ | r/ | | | |
| | 8/88 | 7/88 | 8/87 | 7/88 | 8/87 |
| Nonag. Wage & Salary | 108,950 | 108,700 | 110,100 | 250 | -1,150 |
| Mining | 3,600 | 3,600 | 3,200 | 0 | 400 |
| Construction | 5,950 | 5,800 | 7,300 | 150 | -1,350 |
| Manufacturing | 3,100 | 3,150 | 2,900 | -50 | 200 |
| Transportation | 10,350 | 10,400 | 10,600 | -50 | -250 |
| Trade | 26,100 | 25,800 | 25,800 | 300 | 300 |
| Finance-Ins. & R.E. | 7,600 | 7,550 | 7,800 | 50 | -200 |
| Services | 25,500 | 25,600 | 25,150 | -100 | 350 |
| Government | 26,750 | 26,800 | 27,350 | -50 | -600 |

### Gulf Coast

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | p/ | r/ | | | |
| | 8/88 | 7/88 | 8/87 | 7/88 | 8/87 |
| Nonag. Wage & Salary | 23,850 | 24,000 | 23,800 | -150 | 50 |
| Mining | 800 | 750 | 900 | 50 | -100 |
| Construction | 1,100 | 1,050 | 1,300 | 50 | -200 |
| Manufacturing | 7,000 | 7,550 | 7,000 | -550 | 0 |
| Seafood Processing | 6,400 | 6,950 | 6,400 | -550 | 0 |
| All Other Manufacturing | 600 | 600 | 600 | 0 | 0 |
| Transportation | 1,400 | 1,400 | 1,350 | 0 | 50 |
| Trade | 4,100 | 4,150 | 3,950 | -50 | 150 |
| Wholesale | 550 | 600 | 600 | -50 | -50 |
| Retail | 3,550 | 3,550 | 3,350 | 0 | 200 |
| Finance-Ins. & R.E. | 600 | 550 | 600 | 50 | 0 |
| Services | 3,550 | 3,550 | 3,650 | 0 | -100 |
| Government | 5,300 | 5,000 | 5,050 | 300 | 250 |
| Federal | 550 | 500 | 600 | 50 | -50 |
| State | 1,650 | 1,550 | 1,500 | 100 | 150 |
| Local | 3,100 | 2,950 | 2,950 | 150 | 150 |

### Fairbanks

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | | p/ | r/ | | |
| | 8/88 | 7/88 | 8/87 | 7/88 | 8/87 |
| Nonag. Wage & Salary | 26,850 | 26,550 | 26,750 | 300 | 100 |
| Mining | 100 | 100 | 150 | 0 | -50 |
| Construction | 2,000 | 1,850 | 2,100 | 150 | -100 |
| Manufacturing | 550 | 550 | 600 | 0 | -50 |
| Transportation | 2,350 | 2,350 | 2,350 | 0 | 0 |
| Trucking & Warehousing | 400 | 400 | 350 | 0 | 50 |
| Air Transportation | 400 | 400 | 300 | 0 | 100 |
| All Other Transportation | 1,550 | 1,550 | 1,700 | 0 | -150 |
| Trade | 6,100 | 6,250 | 5,800 | -150 | 300 |
| Wholesale | 700 | 750 | 700 | -50 | 0 |
| Retail | 5,400 | 5,500 | 5,100 | -100 | 300 |
| Food Stores | 800 | 850 | 850 | -50 | -50 |
| All Other Retail | 4,600 | 4,650 | 4,250 | -50 | 350 |
| Finance-Ins. & R.E. | 850 | 850 | 950 | 0 | -100 |
| Services | 6,000 | 5,900 | 5,950 | 100 | 50 |
| Government | 8,900 | 8,700 | 8,850 | 200 | 50 |
| Federal | 2,950 | 2,950 | 2,950 | 0 | 0 |
| State | 3,600 | 3,450 | 3,550 | 150 | 50 |
| Local | 2,350 | 2,300 | 2,350 | 50 | 0 |

### Interior

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | | p/ | r/ | | |
| | 8/88 | 7/88 | 8/87 | 7/88 | 8/87 |
| Nonag. Wage & Salary | 30,950 | 30,400 | 31,050 | 550 | -100 |
| Mining | 300 | 300 | 300 | 0 | 0 |
| Construction | 2,200 | 2,050 | 2,400 | 150 | -200 |
| Manufacturing | 600 | 600 | 600 | 0 | 0 |
| Transportation | 2,650 | 2,650 | 2,750 | 0 | -100 |
| Trade | 6,650 | 6,650 | 6,350 | 0 | 300 |
| Finance-Ins. & R.E. | 900 | 900 | 1,050 | 0 | -150 |
| Services | 6,600 | 6,500 | 6,650 | 100 | -50 |
| Government | 11,050 | 10,750 | 10,950 | 300 | 100 |

### Southeast Alaska

| | | | | Changes From: | |
|---|---|---|---|---|---|
| | | p/ | r/ | | |
| | 8/88 | 7/88 | 8/87 | 7/88 | 8/87 |
| Nonag. Wage & Salary | 32,350 | 31,600 | 31,350 | 750 | 1,000 |
| Construction | 1,150 | 1,100 | 1,300 | 50 | -150 |
| Manufacturing | 6,200 | 5,700 | 5,500 | 500 | 700 |
| Seafood Processing | 2,400 | 2,000 | 2,100 | 400 | 300 |
| Lumber & Paper Prod. | 3,550 | 3,450 | 3,200 | 100 | 350 |
| All Other Manufacturing | 250 | 250 | 200 | 0 | 50 |
| Transportation | 2,500 | 2,450 | 2,450 | 50 | 50 |
| Trade | 4,950 | 4,950 | 5,100 | 0 | -150 |
| Wholesale | 450 | 450 | 450 | 0 | 0 |
| Retail | 4,500 | 4,500 | 4,650 | 0 | -150 |
| Finance-Ins. R.E. | 1,150 | 1,150 | 1,100 | 0 | 50 |
| Services | 4,950 | 4,950 | 5,000 | 0 | -50 |
| Government | 11,250 | 11,100 | 10,800 | 150 | 450 |
| Federal | 2,000 | 2,000 | 2,050 | 0 | -50 |
| State | 5,200 | 5,150 | 4,900 | 50 | 300 |
| Local | 4,050 | 3,950 | 3,850 | 100 | 200 |

Production is up along with drilling activity. September's Hughes oil rig count for Alaska was up by four over last year. Job wise this translates into approximately 200 direct jobs in the industry.

The lion's share of the state's secondary economy (trade and services) is presently lingering in balance. The retail trade employment level for the first eight months of the year is even with 1987 levels-a vast improvement over the two and seven percent losses endured in 1986 and 1987. The service industry's eight month employment track record is down (-1.8%) but in recent months employment has surged above year-ago levels. Renewed confidence in the economy and some improvement in personal income have breathed some new life into this sector.

The government picture is mixed. Federal government employment remains virtually unchanged. State government for the first eight months of the year is almost two percent above year ago levels. Local government remains the low spot in government. It is still losing ground, though these losses are concentrated in Fairbanks and Anchorage. Most other communities are finding it possible to maintain their government employment levels.

Early accounts of this year's tourism season have been good. A record number of cruise ships docked in most Alaskan ports this year. Cheap gasoline insured strong Alaska Highway tourist traffic. The number of visitors to Denali National Park and most national parks will hit new records when the end of the year counts are made. Not all tourist operators experienced increases, but much of that may be because competition is growing. New entry into tourism industry is strong, and in some cases it is growing faster than the market is. An increasing share of the tourism market is going to the independent traveller, which means those businesses catering to this segment of the market have greater potential for growth.

### The Economy's Weak Side

Meanwhile, Alaska's construction industry remains in rough shape. The value of construction awards in the state are off by 16% from 1987, which was a poor year itself in Alaska's construction industry. August's

**Construction losses remain the single largest drag on the economy. If construction were not sustaining these large losses, the overall economy would be registering growth in 1988**

Table 3
Alaska Hours and Earnings for Selected Industries [1]/[2]

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | P/ 8/88 | R/ 7/88 | 8/87 | P/ 8/88 | R/ 7/88 | 8/87 | P/ 8/88 | R/ 7/88 | 8/87 |
| Mining | $1,160.32 | $1,191.71 | $1,060.34 | 49.0 | 49.8 | 47.4 | $23.68 | $23.93 | $22.37 |
| Construction | 1,071.79 | 1,046.86 | 1,093.11 | 43.2 | 42.4 | 43.9 | 24.81 | 24.69 | 24.90 |
| Manufacturing | 511.99 | 465.98 | 524.39 | 46.8 | 46.0 | 48.6 | 10.94 | 10.13 | 10.79 |
| Seafood Processing | 409.95 | 392.85 | 435.86 | 48.4 | 48.5 | 50.8 | 8.47 | 8.10 | 8.58 |
| Lumber & Paper Prod | 697.92 | 587.12 | 716.45 | 44.2 | 38.1 | 44.5 | 15.79 | 15.41 | 16.10 |
| Trans., Comm. & Util. | 565.61 | 604.63 | 575.24 | 34.7 | 37.3 | 36.5 | 16.30 | 16.21 | 15.76 |
| Trade | 369.69 | 389.05 | 371.13 | 33.7 | 35.4 | 34.3 | 10.97 | 10.99 | 10.82 |
| Wholesale | 520.23 | 568.26 | 525.10 | 37.4 | 41.0 | 39.6 | 13.91 | 13.86 | 13.26 |
| Retail | 321.10 | 330.96 | 320.13 | 32.5 | 33.6 | 32.5 | 9.88 | 9.85 | 9.85 |
| Finance-Ins. & R.E | 394.88 | 414.38 | 391.40 | 33.1 | 35.6 | 33.8 | 11.93 | 11.64 | 11.58 |

BENCHMARK MARCH 1987

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor.

[2] Excludes eating and drinking establishments.

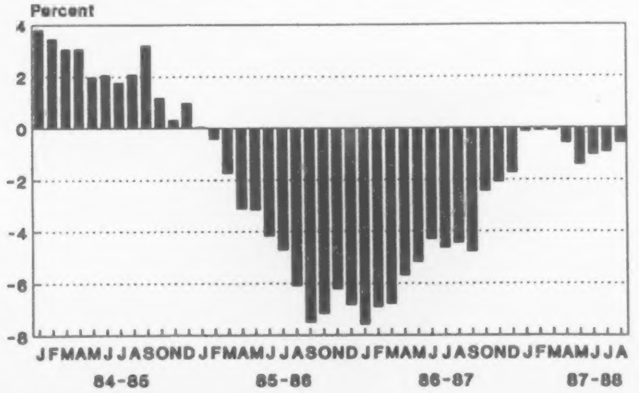
AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

Alaska's construction industry. August's employment level of 11,220 represents less than half the peak August 1983 employment of 26,300. We have to reach back to the year 1973 to find an equivalent August level of employment activity in Alaska's construction industry. We only have to return to 1982-83 to find a similar measure of activity for the entire economy. Construction losses remain the single largest drag on the economy. If construction were not sustaining these large losses, the overall economy would be registering growth in 1988.

**Preliminary estimates for August indicate that Fairbanks' employment has turned the corner after more than two and a half years of losses**

The state's finance-insurance and real estate industry is not in much better shape than construction. The latest casualty in the financial sector was Alaska Continental Bank, which was shut down by state banking authorities in August. It reopened as First Interstate Bank based out of Los Angeles. This brings the number of financial institutions which have closed their doors to seven. A number of other financial institutions remain in tough shape, some of which may join the list of failures. The real estate sector also remains on the critical list. Recent reports have been trickling in that new activity is occurring in real estate. Much of it appears to be upgrading activity. Institutional investors are also beginning to eye real estate with interest, which could be a good sign.

Figure 1
Alaska Employment
Over-the-Year Change by Month



## Geographic Differences Prevail

Not only is the industry picture mixed, but so is the geographic picture. From a statewide perspective, Anchorage remains one of the biggest blemishes on the state's economy. Though the largest city's picture has improved markedly over the last year (a 2.5% decline versus an 8.0% decline in 1987) its continued job losses has prevented the statewide economy from moving into the black. The surplus of real estate has kept the local construction industry extremely depressed, and it continues to strain the city's financial sector. Anchorage is not benefiting from the improved outlook in the state's fishing, timber and hard rock mining industries to the degree that other parts of the state are.

This is not to say that there are no bright spots. The state's oil industry, headquartered in Anchorage, is looking up. Retail trade is beginning to show signs of new life. State government employment has moved into the positive side of the ledger, and all other industries have improved their performance relatively speaking. In the new development category, Federal Express recently broke ground for a package handling facility which will eventually employ 150-200 people. In spite of Anchorage's lingering problems, whispers of optimism and bottoming out are now being heard in various business and government circles.

Preliminary estimates for August indicate that Fairbanks' employment has turned the corner after more than two and a half years of losses (Figure 3). These estimates are based on only one month's data, and the over-the-year gain is small, but it is a strong indication that the Borough's economy is hitting bottom. Fairbanks' construction industry's losses became small enough in August that healthier industries were able to close the gap in the employment picture. A major factor in this narrowing of construction's losses has been military related construction activity on Fort

Wainwright. Presently approximately $98 million worth of projects are underway. Construction is not yet out of the woods, but it is cutting its losses. It will be critical to watch Fairbanks closely in the upcoming months to see if this positive trend persists.

Southeast Alaska's August unemployment rate of 5.6% was the lowest in the state and was nearly identical to the nation's rate of 5.4%. The region is the major beneficiary of the timber boom. Though the volume of fish caught was disappointing, prices were strong. A strong tourist season is being reported this year. Growth in state government has been another big plus for the region.

Gulf Coast's economic picture is good, but it is not without its detractions. The region's salmon season was excellent, both volume and price wise. Seward and Homer are looking good. The healthy fishing season helped both cities, and the new prison in Seward and the construction of Bradley Lake near Homer are additional pluses. New developments, such as the timber mill in Seward and the homeporting of Oceantrawl's bottomfish operations in Homer keep the economic outlook for these cities promising. Kodiak remains prosperous with its unemployment rate in August at 3.0%. The economy in the Kenai-Soldotna area remains mixed. They are struggling with many of the same problems that Anchorage is, but the picture is slowly improving. Valdez appears to be holding its own.

### Conclusion

The upshot is that the state's economy is not out of the woods yet, but it certainly is making an effort. Certain industries and areas that were either never affected by the recession of 1986 or have already closed the gap are now moving ahead full bore. Some are just getting by and others are straggling. None of the state's regions have yet been able to climb back to where they were during the roaring mid-1980s.

An individual's perspective of when the turn around in the economy arrives is often quite different from the statistical turnaround point. For some individuals the turning point will not come until the economy climbs back to where it was in 1985. For other individuals or businesses the economy has already bottomed out because they found a job, or their sales are beginning to climb again, or they were able to meet the last payroll. Simply said, the bottom or turn around will come at different times for different industries, individuals, and areas of the state.

**Figure 2**
**Industry winners and Losers**
**Alaska Employment by Industry 1987-1988***

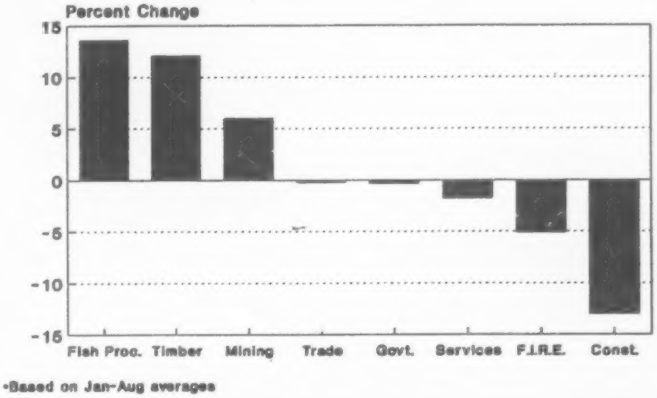
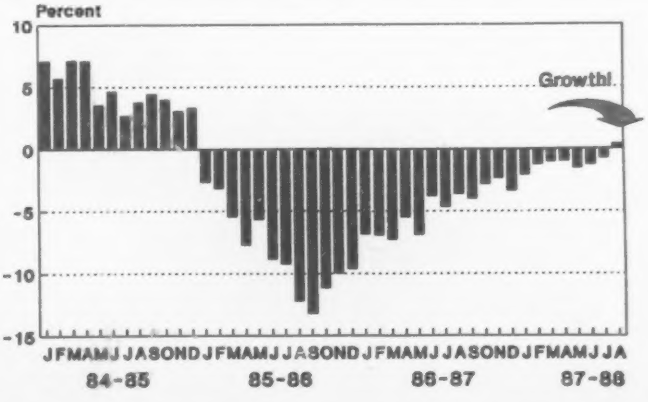


**Figure 3**
**Fairbanks Employment**
**Over-the-Year Change by Month**



## Table 4
## Labor Force By Region and Census Area

| | Labor Force | | | Unemployment | | | Rate | | | Employment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P/ 8/88 | R/ 7/88 | 8/87 | P/ 8/88 | R/ 7/88 | 8/87 | P/ 8/88 | R/ 7/88 | 8/87 | P/ 8/88 | R/ 7/88 | 8/87 |
| Alaska Statewide | 251,072 | 254,183 | 265,608 | 19,077 | 19,392 | 23,596 | 7.6 | 7.6 | 8.9 | 231,995 | 234,791 | 242,012 |
| Anch.-MatSu Region | 127,690 | 129,167 | 135,396 | 9,467 | 9,507 | 11,479 | 7.4 | 7.4 | 8.5 | 118,223 | 119,660 | 123,917 |
| Anchorage Borough | 112,343 | 113,913 | 119,787 | 7,376 | 7,173 | 8,921 | 6.6 | 6.3 | 7.4 | 104,967 | 106,740 | 110,866 |
| MatSu Borough | 15,347 | 15,254 | 15,609 | 2,091 | 2,334 | 2,558 | 13.6 | 15.3 | 16.4 | 13,256 | 12,920 | 13,051 |
| Gulf Coast Region | 30,612 | 31,223 | 32,622 | 2,440 | 2,262 | 2,955 | 8.0 | 7.2 | 9.1 | 28,172 | 28,961 | 29,667 |
| Kenai Peninsula Bor | 19,564 | 19,878 | 20,904 | 1,969 | 1,790 | 2,375 | 10.1 | 9.0 | 11.4 | 17,595 | 18,088 | 18,529 |
| Kodiak Island Bor | 6,688 | 6,878 | 7,109 | 202 | 210 | 278 | 3.0 | 3.1 | 3.9 | 6,486 | 6,668 | 6,831 |
| Valdez-Cordova | 4,360 | 4,467 | 4,609 | 269 | 262 | 302 | 6.2 | 5.9 | 6.6 | 4,091 | 4,205 | 4,307 |
| Interior Region | 36,769 | 36,981 | 39,502 | 3,585 | 3,785 | 4,753 | 9.8 | 10.2 | 12.0 | 33,184 | 33,196 | 34,749 |
| Fairbanks North Star Bor | 31,724 | 31,890 | 33,990 | 3,053 | 3,208 | 3,967 | 9.6 | 10.1 | 11.7 | 28,671 | 28,682 | 30,023 |
| Southeast Fairbanks | 2,152 | 2,151 | 2,322 | 216 | 215 | 295 | 10.0 | 10.0 | 12.7 | 1,936 | 1,936 | 2,027 |
| Yukon-Koyukuk | 2,893 | 2,940 | 3,190 | 316 | 362 | 491 | 10.9 | 12.3 | 15.4 | 2,577 | 2,578 | 2,699 |
| Northern Region | 7,971 | 8,169 | 8,368 | 810 | 908 | 927 | 10.2 | 11.1 | 11.1 | 7,161 | 7,261 | 7,441 |
| Nome | 3,101 | 3,149 | 3,245 | 376 | 386 | 414 | 12.1 | 12.3 | 12.8 | 2,725 | 2,763 | 2,831 |
| North Slope Borough | 2,787 | 2,859 | 2,903 | 151 | 186 | 164 | 5.4 | 6.5 | 5.6 | 2,636 | 2,673 | 2,739 |
| Northwest Arctic Bor | 2,083 | 2,161 | 2,220 | 283 | 336 | 349 | 13.6 | 15.5 | 15.7 | 1,800 | 1,825 | 1,871 |
| Southeast Region | 35,523 | 35,128 | 36,598 | 1,989 | 1,901 | 2,555 | 5.6 | 5.4 | 7.0 | 33,534 | 33,227 | 34,043 |
| Haines Borough | 907 | 888 | 940 | 61 | 50 | 81 | 6.7 | 5.6 | 8.6 | 846 | 838 | 859 |
| Juneau Borough | 15,791 | 15,566 | 16,244 | 838 | 752 | 1,066 | 5.3 | 4.8 | 6.6 | 14,953 | 14,814 | 15,178 |
| Ketchikan Gateway Bor | 6,979 | 6,941 | 7,213 | 353 | 375 | 486 | 5.1 | 5.4 | 6.7 | 6,626 | 6,566 | 6,727 |
| Pr. of Wales-Outer Ktch | 2,628 | 2,611 | 2,702 | 225 | 230 | 262 | 8.6 | 8.8 | 9.7 | 2,403 | 2,381 | 2,440 |
| Sitka Borough | 4,231 | 4,197 | 4,347 | 210 | 212 | 265 | 5.0 | 5.1 | 6.1 | 4,021 | 3,985 | 4,082 |
| Skagway-Yakutat-Ang | 1,625 | 1,619 | 1,681 | 141 | 148 | 174 | 8.7 | 9.1 | 10.4 | 1,484 | 1,471 | 1,507 |
| Wrangell-Petersburg | 3,362 | 3,306 | 3,471 | 161 | 134 | 221 | 4.8 | 4.1 | 6.4 | 3,201 | 3,172 | 3,250 |
| Southwest Region | 12,507 | 13,515 | 13,122 | 786 | 1,029 | 927 | 6.3 | 7.6 | 7.1 | 11,721 | 12,486 | 12,195 |
| Aleutian Islands | 3,473 | 3,731 | 3,606 | 98 | 135 | 94 | 2.8 | 3.6 | 2.6 | 3,375 | 3,596 | 3,512 |
| Bethel | 4,888 | 5,292 | 5,193 | 391 | 502 | 514 | 8.0 | 9.5 | 9.9 | 4,497 | 4,790 | 4,679 |
| Bristol Bay Borough | 435 | 467 | 443 | 28 | 33 | 20 | 6.4 | 7.1 | 4.5 | 407 | 434 | 423 |
| Dillingham | 2,182 | 2,328 | 2,276 | 88 | 97 | 97 | 4.0 | 4.2 | 4.3 | 2,094 | 2,231 | 2,179 |
| Wade Hampton | 1,529 | 1,697 | 1,604 | 181 | 262 | 202 | 11.8 | 15.4 | 12.6 | 1,348 | 1,435 | 1,402 |

P/= Preliminary R/= Revised 1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

**ALASKA ECONOMIC TRENDS**

ALASKA DEPARTMENT OF LABOR
EMPLOYMENT SECURITY DIVISION
PO BOX 3-7000
JUNEAU, ALASKA 99802

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

EMPLOYMENT SECURITY MAIL
POSTAGE AND FEES PAID
LAB 449

U.S.MAIL

EMPLOYMENT SECURITY MAIL
POSTAGE AND FEES PAID
LAB 449